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ART. I.—BRYANT'S POEMS.*

THE component parts of poetry are three—*Feeling*, *Fancy*, and *Melody*. *Feeling* is the soul of poetry, *Fancy* its body, and *Melody* its clothing. *Feeling* alone will constitute poetry without the other two. Perhaps *Fancy* may. *Melody* standing alone never will. The importance of these several ingredients are indicated by the order in which they are named, and by the figures under which they are represented. A poem to be perfect, however, must contain them all.

Under the term *Feeling*, we comprehend passion and moral sentiment. Byron, we believe, is said to have defined poetry to be the language of the passions. It is not this alone. Perhaps it is difficult to draw a precise line between passion and moral sentiment. They both belong to the heart. It is sufficient for our purpose to consider the former as more immediately under the control of impulse, and the latter under that of the mind. We may be pardoned for making *this* distinction between the two—saying, for our present purpose, that passion is of the heart, and moral sentiment of the mind or soul. Metaphysicians are not agreed amongst themselves, as to the exact distinctions between the heart—that is, the heart *metaphysique*—the mind and the soul, and their relations to each other. Could there be any moral sentiment without the heart? Probably not. Yet, in familiar parlance, we speak of moral sentiment with which impulse, the great master of the heart, has nothing apparently to do. We call it philosophy, and say that it is the mere dictate of reason. If passion or impulse could call it their own in the first instance, it passes into the hands of reason, and she so metamorphoses it, putting upon it her own image and superscription, that the original proprietors would never recognise their estray. But we do not mean to

* Poems: by William Cullen Bryant. Collected and arranged by the author. Complete in one volume. Philadelphia: Carey and Hart, 1848.

deal in metaphysics. We merely wish to show a difference between passion and moral sentiment. Passion, then, for the present, will be considered the creature of impulse—impulse itself, if you will—while moral sentiment will be considered the creature of the mind. Perhaps a tolerable convertible term for the latter is philosophy.

Both passion and moral sentiment, then, are chief elements in poetry. There may be a sublime of passion, and a sublime of moral sentiment. One of these has been the inspirer of one poet, the other of another. It is difficult to say which produces the best poetry. A person of one temperament will claim the palm for one, another of a different temperament will claim it for the other. Good poems have been written under the influence of each. Passion poetry will always be the most popular, while moral sentiment poetry will be the favorite of a chosen few, whose minds are deeply imbued with the spirit of philosophy. Poetry may, indeed, be divided into the popular and the philosophic schools. Byron may represent the one school, Shelley the other. Byron will have a hundred, perhaps a thousand readers, to Shelley's one. Shelley's admirers will read Byron, and call him bombastic. Occasionally one of Byron's admirers will take up Shelley, read a paragraph, throw him down, and call him dull, stupid, and brain-befogged.

It was on account of not taking these things into consideration, as well as on account of a little malice borne Byron by Scotch Reviewers, that a writer in Blackwood, about a year ago, we believe, took up the author of Childe Harold's apostrophe to the ocean, and endeavored, by a long essay, to prove it *vox et præterea nihil*. For this cause he gained the credit of being a malicious fool with most of his readers, when, in reality, there is a good deal of sound sense in what he says; and his article would have been a capital, orthodox one, could he have only looked a little farther into his subject.

But we pass from the first ingredient of poetry to the second, which we call *Fancy*. Fancy directs the poet what words to select, in order best to express his meaning. The language of poesy is essentially different from that of prose. It is purer, chaster, neater. The poet must not use gay words for a grave subject, nor grave words for a gay subject. Neither must he use trite expressions for a subject which is grand and lofty. To use grand and lofty words for a trite subject, were indeed foolish. But all this applies to the choice of language in prose also. Yet it is peculiarly applicable to poetry. Perhaps no task is more difficult than to tell what kind of language should be used in poetry. We may have our own ideas of it, and yet, through the grossness of the medium of communicating them, we may not be able to deliver those ideas in a forcible way. An inverted manner of expressing one's self in writing poetry, is often highly effective. Yet this is not always necessary, nor is it always indeed poetical to invert. It is frequently the case that the most proper language in verse is the most straight-forward. This depends on the subject to some extent, and intuition is the best guide in such matters. Yet we would not say that fancy is incapable of improvement, but quite the contrary.

Fancy includes what we mean when we speak of a "happy turn of expression," or an *epigrammaticness*, if we may be allowed to coin a word. Poesy does not allow her votaries to express themselves in a loose, careless style. If they do, she refuses to look upon their productions with that favor and affection with which she would regard them under other circumstances. She likes for you to express yourself with a quickness, a pertness, a pointedness, a laconicness. Probably nothing is so disagreeable to her as verbiage, circumlocution, particles, epithet, expletive. Rhyme-writers deal much in these things, and seem to think the latter peculiarly well calculated to propitiate the smiles of the goddess whom they seek to please. But like the unfortunate lover of "mortal maid," the greater effort he makes, after having passed a certain degree, the farther he is from attaining his object.

To so express yourself in poetry as to make the sound of your language, independent of the meaning of the words, express the idea you intend to convey, is a great secret of the art divine. If you write about humming-bees, or murmuring-brooks, it is highly effective to so construct your machinery of words, as to give an idea, simply by their sound, of the humming and the murmuring. The sound should always be adapted to the sense. We have several fine examples of this in the *Æneid*. Take the opening of this poem :

"*Arma, virumque cano, Trojæ qui primus ab oris.*"

Here the rough sounding of the letter *r*, as Dryden remarks, gives this line the appearance of sounding a charge, and beginning like the clangor of a trumpet. It is peculiarly an appropriate line for the opening of such a poem as the *Æneid*. Take another example in the following, found in Virgil's description of a storm :

"*Insequitur clamorque virûm stridorq ; rudentum.*"

What better indicates the clamor of men, and the creaking of the rigging, than the sound of this line, independent of the meaning of the words? Now take an example of an opposite nature. When Venus, with tears in her eyes, and a melancholy pensiveness, approaches Jupiter to intercede for her son *Æneas*, and save him from the wrath of his scolding wife, Juno, she is thus described by the poet :

"*Tristior, et lachrymis oculos suffusa nitentes
Alloquitur Venus.*"

Here fancy has enabled Virgil, by the construction of his language, to give the very best picture of melancholy feminine sadness. The most unpractised ear will discover a difference in sound, affecting the sense, from the other two examples which we have given. Perhaps we have not given the most favorable illustrations, but they serve our purpose. Many other things constituting fancy in poetic language might be mentioned here, but we trust we have said enough to be understood.

Some may think that this sounding of words should be embraced under the head *Melody*. We shall show that we mean a far different thing by this term.

By *Melody* we mean the sweetness and smoothness produced by rhythm, rhyme, alliteration, and such other graces of language as are considered under the rules of prosody. We have said that this is the least important part of poetry; yet it has its worth in poetical composition. We know that would-be critics are in the habit of pronouncing upon rhyme, and such other things as produce melody, as a mere nothing. Any one can write rhyme, say they. This is false. Every one cannot rhyme well. It requires a considerable degree of proficiency in the divine art to construct a smoothly flowing line. True it is, that this part of poetry comes nearer being the child of art than any other. But even this is not entirely so. And he who is well versed in the constituent of poetry, which we have denominated melody, may rest assured that he is much more indebted to Nature than to Art for his gift.

A poet is born one. At the same time we admit that he may cultivate *feeling*, the soul of poetry, to some extent. *Fancy* is still more capable of cultivation, and *melody* the most of the three.

We have not time to enlarge upon the principles we have laid down above. We merely intend to establish a criterion by which to determine the merits of Mr. Bryant's poetry. At some future time we may write an essay on poetry, express ourselves more fully than we have been able to do here, and illustrate our positions by various extracts from different poets. In the meantime, we must express our high opinion of Mr. Poe's articles first published in the Southern Literary Messenger some time since, headed the "Rationale of Verse." He treats principally of what we include under the term melody. We thank him for the philosophic views which he takes of his subject, and we hereby express our general concurrence in what he says.

We come now to apply what has been said to Mr. Bryant's poetry. We begin by saying we consider him a true poet—one who, though not by any means belonging to the first class, is one of nature's sons, blessed with the immortal longings which are characteristic of those who write as he does. As one evidence of it, we refer to our author's ability to see the poetical in things which are barren of interest to the ordinary eye. Dull must be the sensibilities indeed, of the man who has no emotion excited within his bosom, when he stands upon the brink of a precipice, and hears the torrent thundering over the eternal granite, into the awful chasm below, whence is sent up a cloud of snow-white spray to glad his side, or to lave his blood-hot temples. Idiotic indeed must he be, who can listen to the singing of birds, the sighing of winds, the murmuring of brooks—who can turn his eye upon the clear firmament of a moon-light night, or upon the flower-bed beneath his feet, and feel no thrillings of the heart within him. But it requires something more than an ordinary mind to discover light, and hope, and beauty, where there is usually nothing seen but darkness, gloom and deformity. Our author says—

"Not in the solitude
Alone may man commune with Heaven, or see
Only in the savage wood
And sunny vale, the present Deity;
Or only hear his voice
When the winds whisper, and the waves rejoice."

Our author does not look alone to solitude, to the savage wood, the sunny vale, where the winds whisper and the waves rejoice, to hold that communion with Heaven which is always held by the bard in his poetical mood. He sees beauty, and light, and poetry, in the stormy March,

"With wind, and cloud, and changing skies."

And, in the "reign and blast of the storm," he can still say, with a heart swelling with poetic fervor,

"But in thy sternest frown abides
A look of kindly promise yet."

In the beginning of this article we divided poetry into passion poetry and moral sentiment poetry. Mr. Bryant's belongs to the latter class. There are various kinds of moral sentiment. To point out the principal ones which characterize our author's productions, is what we shall now undertake.

We have observed that there may be a sublime of moral sentiment as well as a sublime of passion. Of the former, Mr. Bryant gives us several excellent specimens. We shall quote from two poems, passages in proof of this assertion. Beginning with the "Thanatopsis," our author's best and most admired poem, we present extracts which refer more particularly to death, on which he discourses so sublimely here, as well as in his Ode to Death.

"Yet a few days and thee
The all-beholding sun shall see no more
In all his course; nor yet the cold ground,
Where thy pale form was laid, with many tears,
Nor in the embrace of ocean shall exist
Thy image.

* * * * *

"Thou shalt lie down
With patriarchs from the infant world—with kings,
The powerful of the earth—the wise, the good,
Fair forms, and hoary seers of ages past,
All in one mighty sepulchre.

* * * * *

"So live, that when thy summons comes to join
Th' innumerable caravan that moves
To that mysterious realm, where each shall take
His chamber in the silent halls of death,
Thou go, not like the quarry-slave at night,
Scourged to his dungeon, but, sustained and soothed
By an unfaltering trust, approach thy grave
Like one who wraps the drapery of his couch
About him, and lies down to pleasant dreams."—(p. 35.)

In looking over the poem from which the foregoing extracts are made, we are almost at a loss to know whether we have not left the best parts unquoted. At the same time, we are well aware that, in giving the extracts which we have done, we have made good our assertion in regard to Bryant's sublimity. It seems almost like a pity to give

any part of the *Thanatopsis* without copying the whole. Want of space, however, often prevents the reviewer from making as extensive extracts from his author as justice would seem to indicate. We can only say, in this place, that the *Thanatopsis* is one of the most sublime and best poems we have ever seen. In its course it resembles the flowing of the ocean—deep, grand, and noble.

Our second example of the sublime shall be the three first stanzas of the "Hymn to the North Star." We give it without comment :

"The sad and solemn night
Hath yet her multitude of cheerful fires ;
The glorious host of light
Walk the dark hemisphere till she retires ;
All through her silent watches, gliding slow,
Her constellations come, and climb the heavens and go.

"Day, too, hath many a star
To grace his gorgeous reign, as bright as they :
Through the blue fields afar,
Unseen, they follow in his flaming way :
Many a bright lingerer, as the eve grows dim,
Tells what a radiant troop arose and set with him.

"And thou dost see them rise,
Star of the Pole ! and thou dost see them set.
Alone, in thy cold skies,
Thou keep'st thy old unmoving station yet,
Nor join'st the dances of that glittering train,
Nor dipp'st thy virgin orb in the blue, western main.—(p. 122.)

An ardent love of nature is a chief characteristic of Mr. Bryant's poetry. He worships this goddess wherever he finds her, and he seldom writes without having something to say about her loveliness. He sings of the "green land of groves," the "beautiful waste" of the

"Sky-mingling mountains, that o'erlook the cloud."

To him, the "brown hunter's shout," amid the forest, as he follows the swift-footed deer, brushing away with his antlers the dew-gems of the overhanging shrubbery, speaks a language which awakens the poet's inspiration.

"And where his willing waves yon bright blue bay
Sends up, to kiss his decorated brim,
And cradles, in his soft embrace, the gay
Young group of grassy islands, born of him—"

There our poet delights to sit down and copy, from the glowing page of nature's volume, the verse which is to speak a tale of magic to the minds of thousands who will read with eager pleasure the copy which he sets in faithfulness before them.

To the man who has become tired of the active scenes of life—to him of the troubled breast, whose heart has been lashed and lacerated by intercourse with the unpoetic world, until a dark and an angry

storm rages where there should be calmness and quiet, our author speaks thus of his favorite Nature :—

“Stranger, if thou hast learned a truth which needs
No school of long experience, that the world
Is full of guilt and misery, and hast seen
Enough of all its sorrows, crimes and cares,
To tire thee of it, enter this wild wood
And view the haunts of Nature. The calm shade
Shall bring a kindred calm, and the sweet breeze
That makes the green leaves dance, shall waft a balm
To thy sick heart. Thou wilt find nothing here
Of all that pained thee in the haunts of men,
And made thee loathe thy life.”

Our author tells us, that—

“When breezes are soft and skies are fair,
He steals an hour from study and care,
And hies him away to the woodland scene,
Where wanders the stream with waters of green.”—(p. 43.)

In the following lines, extracted from the same poem—“Green River”—from which the above quotation is made, our author alludes to his duties as editor—he being at the head of a newspaper—and refers to the pleasure which he derives from retiring for awhile from the drudgery of his calling, to favorite scenes of Nature :—

“Though forced to drudge for the dregs of men,
And scrawl strange words with the barbarous pen,
And mingle among the jostling crowd,
Where the sons of strife are subtle and loud—
I often come to this quiet place,
To breathe the airs that ruffle thy face,
And gaze upon thee in silent dream,
For in thy lonely and lovely stream
An image of that calm life appears,
That won my heart in my greener years.”—(p. 45.)

In the following extract we learn how Mr. Bryant teaches her, whom we take to be his little daughter, who had just

“Gathered the blossoms of her fourth bright year,”
to imitate her father in his love of Nature :—

“For I have taught her with delighted eye
To gaze upon the mountains—to behold,
With deep affection, the pure, ample sky,
And clouds along its blue abysses rolled,—
To love the song of waters, and to hear
The melody of winds with charmed ear.”—(p. 151.)

And here he invites one, whom we take to be nearer than his daughter even, to participate with him in his adoration at the shrine of his favorite goddess :—

“Come thou in whose soft eyes I see
The gentle meanings of thy heart,
One day amid the woods with me,
From men and all their cares apart.”—(p. 189.)

Of our author it may be said, in the beautiful language of an extract from his immortal poem, that he

"Goes forth, under the open sky, and lists
To Nature's teachings, while from around—
Earth and her waters, and the depths of air—
Comes a still voice."—(p. 32.)

To this still voice Mr. Bryant is ever attentive; and under the teachings of its inspiration, he has written his best poetry. His descriptions of rural scenery are beautiful, accurate and true. He excels in the descriptive. Take the following example from the poem called the "Burial Place:"—

"There the yew,
Green even amid the snows of winter, told
Of immortality, and gracefully
The willow, a perpetual mourner, drooped;
And there the gadding woodbine crept about,
And there the ancient ivy. From the spot
Where the sweet maiden, in her blossoming years
Cut off, was laid with streaming eyes, and hands
That trembled as they placed her there, the rose
Sprung modest, on bowed stalk, and better spoke
Her graces than the proudest monument."—(p. 53.)

We can better speak of Mr. Bryant's sympathy for the American Indians under the head of his love for nature, than anywhere else. This sympathy for the aborigines of the North American continent, together with his fondness for the wild legends of the red man of the forest, constitutes a chief element of his poetry. A greater field of poetry does not exist, than the manners, the habits, and the customs of the American Indians. Their fierce war-whoop, their bloody encounters, their wild and untamed passions, their deep forests, their pursuit of the wolf, the bison and the deer, their ideas of the Great Spirit, their legends connected with every mountain, hill and stream—all these form an inexhaustible mine of poesy from which our writers too seldom draw. Mr. Bryant has not been blind to these things, as a few extracts will show. Here is the first stanza from a poem called "An Indian Story:"—

"An Indian girl was sitting where
Her lover, slain in battle, slept;
Her maiden veil, her own black hair,
Came down o'er eyes that wept;
And wildly in her woodland tongue,
This sad and simple lay she sung."—(p. 70.)

Then follows the song of the Indian girl, of which here are the last four stanzas:—

"Thou'rt happy now, for thou hast passed
The long dark journey of the grave,
And in the land of light, at last
Hast joined the good and brave;
Amid the flushed and balmy air,
The bravest, and the loveliest there.

"Yet oft to thine own Indian maid,
 Even *thy* thoughts will earthward stray—
 To her who sits where thou wert laid,
 And weeps the hours away,
 Yet almost can her grief forget,
 To think that thou dost love her yet.

"And thou, by one of those still lakes,
 That in a shining cluster lie,
 On which the south wind scarcely breaks
 The image of the sky,
 A bower for thee and me hast made,
 Beneath the many-colored shade.

"And thou dost wait and watch to meet
 My spirit sent to join the blessed,
 And, wondering what detains my feet
 From the bright land of rest,
 Dost seem, in every sound, to hear
 The rustling of my footsteps near."—(p. 70.)

We present the first four stanzas of the poem called "An Indian Story," as being very beautiful. They are after the manner of Moore's "Lake of the Dismal Swamp," and possess much of the merit of that poem:—

"I know where the timid fawn abides,
 In the depths of the shaded dell,
 Where the leaves are broad, and the thicket hides,
 With its many stems and its tangled sides,
 From the eye of the hunter well.

"I know where the young May violet grows,
 In its lone and lowly nook,
 On the mossy bank, where the larch tree throws
 Its broad, dark boughs, in solemn repose,
 Far over the silent brook.

"And that timid fawn starts not with fear,
 When I steal to her secret bower,
 And that young May violet to me is dear,
 And I visit the silent streamlet near,
 To look on the lovely flower."—(p. 88.)

An unquestionable love of liberty, and hatred of tyrants, serve as Mr. Bryant's constant inspirers throughout the volume before us. The following poem, headed "The Massacre of Scio," while it makes good our author's love of liberty, shows his love for Greece:—

"Weep not for Scio's children slain;
 Their blood by Turkish falchion's shed
 Sends not its cry to Heaven in vain,
 For vengeance on the murderer's head.

"Though high the warm red torrent ran
 Between the flames that lit the sky,
 Yet, for each drop, an armed man
 Shall rise to free the land, or die.

"And for each corpse, that in the sea
Was thrown to feed the scaly herds,
A hundred of the foe shall be
A banquet for the mountain birds.

"Stern rights and sad shall Greece ordain,
To keep that day along her shore,
Till the last link of slavery's chain
Is shivered to be worn no more."—(p. 69.)

What can be better calculated to awake the string of the minstrel's harp to sweetest melody, than a pure and a lofty patriotism? Some of the best poems that have ever been penned, have been composed under its influence. Mr. Bryant is not wanting in this element of poetry. He believes that there is no country like his own. America is to him the land of political, social and moral promise. His affection for her is akin to that which the child feels for its parent. He looks upon her as omnipotent for good, and incapable of evil. He believes that she is leading in the way to the brighter and happier time when good government shall be the boon dearest to, and possessed by, all nations, and that her example will be followed by every people under heaven.

"But thou, my country, thou shalt never fall,
Save with thy children—thy maternal care,
Thy lavish love, thy favors showered on all—
These are thy blessings ;—seas and stormy air
Are the wide barriers of thy borders, where,
Among thy gallant sons that guard thee well,
Thou laugh'st at enemies : who shall then declare
The date of thy deep-founded strength, or tell
How happy, in thy lap, the sons of men shall dwell !"—(p. 31.)

In the poem called "The Lapse of Time," he says :

"Oh, leave me still the rapid flight
That makes the changing seasons gay—
* * * * *

"The years that o'er each sister land
Shall lift the country of my birth,
And nerve her strength, till she shall stand
The pride and pattern of the earth :

"Till younger commonwealths for aid
Shall cling about her ample robe,
And, from her frown, shall shrink afraid,
The crowned oppressors of the globe."—(p. 126.)

Mr. Bryant is a philanthropist in the fullest sense of the word. An ardent desire for the amelioration of his fellow-men, is visible throughout the volume before us. His earnest desire is to see every member of the human family enjoying the blessings Heaven has so bounteously showered down for our common benefit.

"Will the merciful One who stamped our race
With his own image, and who gave them sway
O'er earth, and the glad dwellers on her face,
Now that our swarming nations far away

Are spread, where'er the moist earth drinks the day,
 Forget the ancient care that taught and nursed
 His latest offspring? will he quench the ray
 Infused by his own forming smile at first,
 And leave a work so fair all blighted and accursed?"—(p. 20.)

The answer is,

"Oh, no! a thousand cheerful omens give
 Hope of yet happier days, whose dawn is nigh."—(p. 20.)

This "hope of yet happier days, whose dawn is nigh," pervades our poet's every production. There is no gloom, no misanthropy, no melancholy with him. We remember none but one instance where he at all murmurs, or complains, and in that instance he is excusable. He looks back to the careless, happy days of childhood, when all was sunshine and pleasure, and contrasting life as it is with what the visions of childhood told him it would be, he breaks out into this very natural and very beautiful exclamation:

"Bright visions! I mixed with the world and ye faded,
 No longer your pure rural worshiper now;
 In the haunts your continual presence pervaded,
 Ye shrink from the signet of care on my brow.

* * * * *

"Oh! leave not forlorn and forever forsaken,
 Your pupil and victim to life and its tears!
 But sometimes return, and in mercy awaken
 The glories ye showed to his earlier years."

Mr. Bryant sees the evils of life as much as any man. But he knows that murmuring and complaining will not make them less. He knows that by cultivating a cheerful and contented disposition, one half of what seem to be the ills of life will become, in reality, but small things compared with the numerous other things deigned to man to make him happy. He knows that the spirit of evil often gathers its thick clouds of woe and sorrow around us, but he never loses sight of the "hope of yet happier days, whose dawn is nigh." We cannot deny ourselves the pleasure of copying the whole beautiful poem:

"BLESSED ARE THEY THAT MOURN."
 Oh deem not they are blessed alone,
 Whose lives a peaceful tenor keep—
 The Power who pities man has shown
 A blessing for the eyes that weep.

The light of smiles shall fill again
 The lids that overflow with tears;
 And weary hours of woe and pain
 Are promises of happier years.

There is a day of sunny rest
 For every dark and troubled night;
 And grief may bide an evening guest,
 But joy shall come with early light.

And thou, who o'er thy friend's low bier,
 Sheddest the bitter drops like rain,
 Hope that a brighter, happier sphere,
 Will give him to thy arms again.

Nor let the good man's trust depart,
 Though life its common gifts deny,—
 Though with a pierced and broken heart,
 And spurned of men, he goes to die.

For God has marked each sorrowing day,
 And numbered every secret tear,
 And heaven's long age of bliss shall pay
 For all his children suffer here.

(p. 57.)

From what has been said of Mr. Bryant's knowledge of the evils of life, his philanthropy and hope, it may well be conceived that he is a reformer. We do not mean a *fool reformer*—a blind fanatic who

would ride rough-shod over government, religion, the bible, the present social organization, and every thing else to attain some end, which, when attained, would do more harm than good. But we mean a *wise reformer*—one who would bring about necessary reforms by prudent means—one who has full confidence in reason and education, truth and justice, as means by which to raise mankind to the highest moral, social and political position. He does not believe that this world can be made perfect, but he wishes it to approximate as nearly as possible to perfection; and what good cannot effect here against evil, he expects it to attain in another world. It is for this reason that even death itself is a poetical subject to him, and one of his best pieces is addressed to the monster. Nay, so far from considering death a terror, he considers it a blessing. He looks upon it as the avenger of the poor man's wrongs, and which will give rest to the weary and heavy-laden. Only to the tyrant and the oppressor does it bring terror.

"Raise then the hymn to death. Deliverer!
God hath anointed thee to free the oppressed,
And crush the oppressor.

* * * *

Thou dost avenge,
In thy good time, the wrongs of those who know
No other friend. Nor dost thou interpose
Only to lay the sufferer asleep,
Where he who made him wretched troubles not
His rest—thou dost strike down his tyrant too."—(p. 64.)

Our author is an adorer of truth in opposition to error. To the triumph of the former over the latter, he expects to owe those "happier days, whose dawn is nigh."

"Thus error's monstrous shapes from earth are driven;
They fade—they fly—but truth survives their flight."—(p. 27.)

"Truth, crushed to earth, shall rise again;
The eternal years of God are hers;
But Error, wounded, writhes with pain,
And dies amid his worshipers."—(p. 310.)

We have mentioned Mr. Bryant's cheerfulness as the result of his large hope. In one or two pieces in the volume before us, his cheerfulness is extended into humor. This trait, however, is but seldom found in our author's poetry. We would never go to a man of Mr. Bryant's philosophical, equable temperament for humor. We would seek it rather in the man of a mind and nature not so well balanced as are those of our author. Yet Mr. Bryant has written *some* humorous poetry. We can now call to mind only three pieces—"To a Mosquito," "A Meditation on Rhode Island Coal," and "Spring in Town." We give some extracts from the first piece. Speaking of people's feeding the mosquito on their blood, he proceeds:

"Unwillingly I own, and what is worse,
Full angrily, men hearken to thy plaint;
Thou gettest many a brush, and many a curse,
For saying thou art gaunt, and starved, and faint:
Even the old beggar, while he asks for food,
Would kill the hapless stranger—if he could.

* * * * *

"At length thy pinions fluttered in Broadway—
 Ah, there were fairy steps, and white necks kissed
 By wanton airs, and eyes whose killing rays
 Shone through the snowy veils like stars thro' mist ;
 And fresh as morn, on many a cheek and chin,
 Bloomed the bright blood thro' the transparent skin.

"Sure these were sights to touch an anchorite !
 What ! do I hear thy slender voice complain !
 Thou wailest when I talk of beauty's light,
 As if it brought thee memory of pain :
 Thou art a wayward being—well—come near,
 And pour thy tale of sorrow in my ear.

"What say'st thou—slanderer !—rouge makes thee sick ?
 And China bloom at best is sorry food ?
 And Rowland's Kalydor, if laid on thick,
 Poisons the thirsty wretch that bores for blood !
 Go ! 'twas a just reward that met thy crime—
 But shun the sacrilege another time."—(p. 148.)

What a slanderous mosquito this *must* be, to complain of rouge upon a lady's cheek. But here is a piece of advice Mr. Bryant gives him. We would submit whether our author, being a son of temperance—if such should be the case—would not violate the spirit of his pledge in this advice. We would further submit whether the mosquito might not be using intoxicating drink, if he should dip his "pump" into the blood of "some plump alderman," "enriched by generous wine."

"Try some plump alderman, and suck the blood
 Enriched by generous wine and costly meat :
 On well filled skins, sleek as thy native mud,
 Fix thy light pump, and press thy freckled feet :
 Go to the men for whom, in ocean's halls,
 The oyster breeds, and the green turtle sprawls."—(p. 149.)

We have said that Mr. Bryant is a painter of the moral sentiments of the heart. A few times he forgets the calm quiet generally attendant upon poetry of this kind, and, in writing of the passions, soars aloft upon a stronger pinion than is wont to bear him through the regions of poesy. He then betrays more of the *animus*—as it is vulgarly called—of poetry, than is usual with him. Take the song of the "Greek Amazon" for instance, which we give entire. Here he gives us a picture of woman's vengeance, inspired by love. A more spirit-stirring poem is rarely to be met with.

"I buckle to my slender side
 The pistol and the cimeter,
 And in my maiden flower and pride
 Am come to share the tasks of war ;
 And yonder stands my fiery steed,
 That paws the ground and neighs to go,
 My charger of the Arab breed,—
 I took him from the routed foe.

" My mirror is the mountain spring,
 At which I dress my ruffled hair ;
 My dimmed and dusty arms I bring,
 And wash away the blood-stain there.
 Why should I guard from wind and sun
 This cheek whose virgin rose is fled !
 It was for one—oh only one—
 I kept its bloom, and he is dead.

" But they who slew him—unaware
 Of coward murderers lurking nigh—
 And left him to the fowls of air,
 Are yet alive—and they must die.
 They slew him—and my virgin years
 Are vowed to Greece and vengeance now,
 And many an Othman dame in tears,
 Shall rue the Grecian maiden's vow.

" I touched the lute in better days,
 I led in dance the joyous band ;
 Ah ! they may move to mirthful lays,
 Whose hands can touch a lover's hand.
 The march of hosts that haste to meet
 Seems gayer than the dance to me ;
 The lute's sweet tones are not so sweet
 As the fierce shout of victory."—(p. 117.)

We are now done with the analysis of that portion of Mr. Bryant's poetry which we have denominated *Feeling*, but which is generally called the sentiment or idea. We pass on to what we call *Fancy*—which includes the language by which the *feeling* is conveyed.

Our author's language is pure, chaste, and correct. He generally expresses what he has to say in the shortest and most direct manner. What are usually denominated the figures of speech are not often found in his writings. Apostrophe is more often indulged in by him than any other figure. He lacks one essential element of popular poetry, and that is, a rich fancy and imagination. It is very frequently the case, that a superior sentiment uttered by him in his style, is less favorably received than an inferior one clothed in a richer and a gayer dress. Tom Moore could take the *feeling* of our poet, and putting upon it the clothing of his *fancy*, would make him a much more popular poet than he is. That rich luxuriance of epithet which is so characteristic of the author of *Lalla Rookh*, is almost entirely wanting in our author. He rarely ever indulges in an abundance of epithet. Yet, when he does use this, he is very happy in his expression. He gives in one word what it would require in others a dozen to express. We present some examples of this happy use of epithet, as well as of other felicitous expressions :

" — ranks of *spiky* maize
 Rose like a host embattled."—(p. 319.)

" We *scoop* the ocean to its briny springs."—(p. 323.)

" Bright clouds,
 Motionless pillars of the brazen heaven."—(p. 92.)

"—— the thick turf
Yet virgin from the kisses of the sun."—(p. 93.)

"And stooping from the zenith bright and warm,
Shone the great sun on the warm earth at last."—(p. 108.)

"And darted up and down the butterfly,
That seemed a living blossom of the air."—(p. 109.)

"And there the gadding woodbine crept about."—(p. 53.)

We cannot dwell upon this part of our subject, and we proceed to what we include under the term *Melody*.

It is seldom that we meet with an author who is so correct in the prosody of his verse as Mr. Bryant. His rhyme and rhythm are almost faultless. It is sweet to the ear to set in motion the machine of his poesy. Yet there are some minor faults in rhythm which occur occasionally :

"—— and as he meets
The grave defiance of thine elder eye,
The usurper trembles in his fastnesses."—(p. 341.)

The last italicised line is a very unmusical one.

"—— fitting hour to muse
On each grave theme, and sweet the dream that shed
Brightness and beauty round the destiny of the dead."—(p. 60.)

"Once this soft turf, this rivulet's sands."—(p. 309.)

It is a fault with the two above lines that they contain too many syllables by one. The *i* must be cut out of *destiny* so as to make it read *dest'ny*, and the *u* must be cut out of *rivulet* so as to make it read *riv'let*. These and other similar blemishes are small things, and yet we feel bound to notice them.

So much for the *Melody* of our author's poetry. Upon this subject as upon his *Fancy*, our space and their importance did not allow us to say as much as upon the major topic of his *Feeling*. We have a few other miscellaneous observations to make, and then we will endeavor to sum up the characteristics of the poetry which we have been reviewing.

Mr. Bryant's sonnets have not served to change our contempt for this species of poetry. At the same time we must admit that he does better in some of these productions than poets generally do. We are sorry, however, that he lends his influence to such foolery as the sonnet.

His translations are generally contemptible. We have not seen the originals, and cannot say whether the fault is with them, or with our author. If they are good, we would advise Mr. Bryant to quit translations. If they are bad, we would suggest to him the propriety of translating better pieces, or of confining himself to the coin of his own brain.

The pieces called "Later Poems," we consider inferior to those which precede them.

Let it not be supposed that all the poetry in the volume before us

is as good as the extracts we have given. We must confess that there is a great deal of mediocre composition in the book we have been reviewing. It were better for our author had one-third, or at least one-fourth of his productions, been committed to the flames. He tells us in the preface, that had it not been for a friend, he would have left out of this volume some of the pieces which appeared in former collections. When we remember that authors are often such poor judges of what they write, that Virgil ordered his *Æneid* burnt, and Milton preferred his *Paradise Regained* to his immortal poem; that Petrarch thought nothing of his Sonnets, but depended for fame upon a dull, stupid epic, we are glad to see them submitting their compositions to friends, to pass a pre-publication sentence upon them. At the same time, we often feel regret that the partiality or want of nerve in those to whom this task is committed, induces them to give a verdict which their reason, experience, and judgment condemn.

In assigning Mr. Bryant his position among poets, we would say, that he should occupy a high place in the third class, or a low place in the second rank. It may be asked, why he is not a poet of the first rank. Our answer is, because nature has not made him so. But can he not make himself so? He cannot. We think that Mr. Bryant has made good use of the talent which nature has given him. He has called in art to his assistance, and this friend of his has done all for him that he asked of her. After all, however, we believe that the excellencies of our author's poetry which we have pointed out, as well as those of all true poets, are more the result of the gift to them by nature than their poetry is the result of any thing which art can do for them. *Poeta nascitur*—the poet is born. We can analyze his poetry, and tell all its component parts—or at least we think we can. We believe that we know all its elements, and vainly imagine that we can give rules by which these elements may be united and form the compound called poetry. But synthesis gives analysis the lie. And the numskull who thinks that with the help of his prosody he can write a song or an epic, finds at last that the legislator of poetic rules is a fool, and that he is a bigger fool for putting confidence in their wisdom. It is with the analysis and synthesis of poetry as with the analysis and synthesis of the rose. The botanist will tell you to what class and to what order this flower belongs. The chemist will tell you what are its elementary principles. The light-fingered mechanic may make all the parts of the rose, and may put them together. The painter may blend his colors, and paint the artificial queen of flowers. The chemist may then declare that all the elementary principles have been united to form the gorgeous blossom. The botanist may examine the mock flower, and tell you that it possesses the right number of pistils, stamina and petals, and that every part is as it should be. But after all, where is the fragrance, the essence, the life, the *je ne sais quoi*—the something unknown—which is necessary to form the rose? It has not been touched by Nature's fingers, and she mocks the vain efforts of art to assume her prerogative.

But again. Let it be supposed that the chemist, the anatomist, the mechanic, and the painter, were blessed with a degree of excellence

in their art, wanting nothing but omnipotence itself. Let them go to work and make something in the shape of man. Let every bone and every muscle—every vein and every artery—every nerve and every particle of flesh, be made and shaped to its proper place, from the cavity for the brain to the extremity of the toe. Let the eye peer out from its socket, the lip be ruddy with vermilion, and the cheek blush with the glow of the painter's pencil: Where now is the soul that giveth life to the frame? Where is the *je ne sais quoi*—the *something unknown*—that makes the man? Who shall breathe into the nostrils of this shape of a man the breath of life, that it may become a living soul? Omnipotence laughs to scorn the vain effort of those second in power only to itself.

As with the flower and the shape of a man, so with poetry. You may take the minds of Newton, of Bacon, of Locke, of Aristotle, of La Place, and a dozen such other men. They may employ their lives in the study of what constitutes the excellence of Homer and Milton, and they may tell you of the principle which forms the essence of every line of poetry these two immortals have written; and then they may set to work to write a poem which shall equal those of the two blind bards, and they will never produce an Iliad or a Paradise Lost.

But though we cannot tell Mr. Bryant, or any other poet, what art must do for him to make him equal the master spirits of poetry, yet we think we may venture to say what, if he had been born with it, would have made him a more popular poet. If he possessed more imagination, and a more ardent temperament—if the animal predominated over the moral, so that he would have written concerning the passions instead of the moral qualities of the heart, he would have occupied a high place amongst poets of the second class. With the same mind, and the same genius, he would have been a much greater poet than he is now. It requires more mind, more genius to make a good moral sentiment poet than a passion poet, for the same reason that it requires more mind to make an orator who speaks reason, than a declaimer who spouts nonsense and appeals to the passions of his hearers.

As we have already said several times, our author's poetry belongs to the moral sentiment kind. This being the case, he does not possess genius enough to be one of the first poets. Did his temperament allow him to deal in passion instead of moral sentiment, with the same genius he would be a much more distinguished man. As it is, his poetry occupies a place in the niche of fame. It already occupies a front rank in the classic productions of America, and indeed in those of the English language. Time will but serve to show more of its beauty and excellence. It is chaste, smooth, and melodious in its construction. It would be difficult to express its meaning in fewer and better words. It bears evident marks of continued and elaborated polish. Though it may never have reached the *sanctum sanctorum*—the *holy of holies*—the inner temple on the summit of Parnassus, where so little verse is admitted, yet it oftentimes rises to the sublime, both in sentiment and diction. It revels within the

dense forest, upon the bald summit of the craggy peak, and dwells in green pastures, and lies down beside the still waters. The thunder of the cataract, the murmur of the brook, the rush of the wind and the sighing of the zephyr, with the singing of birds, are its amusement. It reposes under the shade of the spreading oak, and the little flower is its chosen companion. Patriotism inspires its bosom, and it would teach its votaries to give its country the love of their heart of hearts. The love of mankind is its constant companion, and it can never rest unless it is doing something for, or saying something in favor of, the sons of Adam. There is no night and no winter with it. Day-time and spring are forever bright for it, and the sun of hope always shows to its vision "yet happier days, whose dawn is nigh." To hasten on these happier days, and change their dawn into noonday, is its greatest aim and desire. To this end Truth is its bosom friend, and it would sooner cease to be, than part with this dearest of all companions, whom it believes to be omnipotent for good. To every one it meets, with eager voice it says:

"To him who in the love of Nature holds
Communion with her visible forms, she speaks
A various language: for his gayer hours
She has a voice of gladness, and a smile
And eloquence of beauty, and she glides
Into his darker musings with a mild
And healing sympathy, that steals away
Their sharpness, ere he is aware."

ART. II.—MISSISSIPPI VALLEY.

REMARKS ON THE IMPROVEMENT OF THE RIVER MISSISSIPPI.

THE river Mississippi is one of the largest rivers on the earth, and, certainly, the most important. Its past and present condition are interesting, not only because they afford to the student of physical laws an inexhaustible source of information as to their operation, but also, because, with its future condition, are inseparably connected the commercial interests of the inhabitants of the many cities along its banks, and the agricultural prosperity of an immense and rapidly increasing population in the interior. It is remarkable for the length and winding character of its course, its large tributaries, the immense volume of water which it discharges into the gulf, and the vast amount of sedimentary matter which it brings down from above.

Formerly, before the banks along the lower part of the river and adjacent country became subject to cultivation, there were no levees, and the river, in time of flood, inundated the vast extent of low grounds, and deposited a large portion of its sedimentary matter beyond its channel; since the adjacent country, however, has come more into cultivation, and levees have become more necessary and more used, the entire sedimentary matter has been confined to the channel; while, at the same time, the quantity of it has been vastly

increased, by the increased cultivation of the lands in the interior, adjacent to its banks and those of its tributaries. Notwithstanding the increase and confinement of the sedimentary matter within its channel, the increased velocity gained by preventing the water, in time of flood, from spreading over all the low grounds, and confining it to its legitimate channel, would have been sufficient to enable the current to keep that channel open and deep, had not other causes been at work which prevented that result. As the interior of Louisiana began to fill up with population, and her lands came into cultivation, the planters along the banks of the Atchafalaya, Plaquemine, La Fouché, &c., in order that they might be able to carry their produce to market by water—the cheapest mode of conveyance—cleared out and opened the steamboat navigation to these outlets of the Mississippi. Being cleared of rafts and other impediments that had previously contributed to stop up their channels, and having a more direct channel and a shorter course to the gulf, and, therefore, a greater fall, which caused a greater velocity in their currents and a greater scouring power at their bottom than in that of the main river, they drew off a much larger quantity of water from it than they had done before. The consequence is, that these outlets continue to deepen their channels, while the main river is elevating its bed more and more, and its ability to keep its channel open and clear is evidently diminishing every year.

There can be no doubt that the bed of the main river is gradually being elevated by the deposit of sedimentary matter, which the decreased velocity of the current, in consequence of the heavy drafts made upon its volume of water by the outlets already mentioned, is no longer able to transport to the gulf. Some years ago, if a levee gave way in high water, it did but little damage and excited no alarm; the breach was easily repaired. The services of an engineer were not thought necessary. An overseer, with the labor of a few negroes, was fully able to repair the damage. Now, formidable crevasses take place every year, and are becoming more frequent, and, with the elevation of the river's bed, more dangerous. Whole plantations are swept over, and even the city of New-Orleans, at times, does not seem altogether beyond the reach of danger. That this increased danger does not arise from any increase in the volume of water in the main river, is evident. The average quantity of rain that annually falls in the valley of the Mississippi, if not less, is certainly not greater than formerly, while the increased cultivation of the valley admits of such an increase of evaporation, as must rather diminish than increase the quantity of water that the valley empties into the gulf. Besides, the clearing out of those outlets already mentioned, and their increased depths consequent upon their increased velocity, has drawn off from the main river as much, at least, as it has gained by the confinement of its waters within the levees, if not more.

Should this condition of the river continue progressing, as it certainly has done for some years, the future affords but a gloomy prospect for those who reside near its banks. The steady elevation of the bed of the river, and consequent elevation of its surface above the adja-

ent banks, will cause the fertility of the plantations near the river to be gradually destroyed, by the slow but certain process of filtration; while the crevasses will continue to become more frequent and destructive, until the plantations along its banks, or within a certain distance of its course, will be rendered either utterly unfit for cultivation, or considerably depreciated in value, as their cultivation will be attended with too much risk and too little profit.

But this is not the worst danger to be feared from its present condition. If the river should be permitted to continue thus elevating its bed, the consequence must be, that the quantity of water that passes into the lateral outlets, which, having more fall and greater velocity at the bottom, will also have deeper channels, will continue to increase; while the volume of water in the main river, its velocity and consequent transporting power decreasing, the deposit of sedimentary matter will increase, and the bed become more rapidly elevated every year. The result of this progressive change must necessarily be, that the present main river will cease to discharge the same volume of water it now does, cease to be the main river, and finally cease to be navigable; while one of the now lateral outlets, having a shorter course and a greater fall to the gulf, and consequently greater velocity at the bottom, and a constant tendency to enlarge its channel, will receive a continually increasing proportion of the water descending from the interior, and ultimately become the main stream. This is a question of too much importance to be treated lightly, or overlooked, until the mischief is irreparable. In it is involved the interest of every man who lives or owns property on the lands adjacent to the present course of the river, but more particularly of the owners of real estate in New-Orleans, and thousands who now live by its commerce, and expect to leave it as a legacy to their children. For, if the river be permitted to fill up its bed until its elevation begins to interfere with its navigation, some new city will start up on the new channel, a commercial rival to New-Orleans, while real estate in the latter will become comparatively worthless, and its commercial reputation sink far more rapidly than it rose.

But it may be asked, what should be done? What course should be adopted to remedy the evils which are becoming every year more formidable, and remove the dangers which are becoming more threatening? Let me first consider what are the principal defects of the river, and then suggest the best, and, as I believe, the only means by which these defects can be remedied and these dangers removed.

The principal defects of the Mississippi are—1st. The winding character of its course, which causes alteration in its banks, and which causes the greatest depth and force of the water to be always nearer to one bank than the other, also increases its length in the same distance proportionally, diminishes the fall, increases the resistance, and, consequently, by lessening the velocity, weakens the scouring power.

2d. The great number of lateral outlets, which, by diminishing the volume of water, lessen the velocity of the current, and consequently its power to keep its channel open and clear.

3d. The bar at the mouth, which, by offering the resistance of

a vast accumulation of sedimentary matter, retards, and thereby diminishes the velocity of the water above, which will produce a greater rise of the surface of the river, and consequent overflow of the banks in time of a flood.

If the course of the river were more direct, there would be less abrasion of the banks, the fall would be greater, the velocity would also be greater, and the power of the current, acting with more force upon the middle of the bed of the river, the channel would necessarily be deeper, and the height of surface of the river be reduced. A winding channel diminishes the velocity of a river, not only by increasing the length of its course, but also by the increased resistance which the current meets in the channel, and produces the effect of damming back the stream.

As the channel of a river is made by its currents, its depth depends, all other things being equal, upon the volume and velocity of the water. Therefore, every lateral outlet which, by discharging a portion of the water, diminishes its volume and velocity, and thereby lessens its weight and scouring power, inevitably lessens the depth of the channel; for when the current is no longer powerful enough to carry seaward the immense quantity of sedimentary matter that comes down from above, the bed of the river is elevated by the settling of that sediment along the bottom. The more the bed of the river is elevated, the more the surface of the water is also elevated, and consequently the danger of overflow is increased.

A bar at the mouth of a river, by the resistance which it offers to the free discharge, will dam back the water until it acquires a sufficient height to enable it to overcome the impediment, and thus may produce inundations in the upper reach of the river.

All these defects are attended with injurious consequences to the permanent importance of the river, and the prosperity of the inhabitants along its banks, from the fact that whatever checks the current, or diminishes its velocity, causes sedimentary matter to be deposited in the channel. It is necessary, therefore, that these defects should be removed, otherwise the continued elevation of the bed will render crevasses more frequent and destructive every year, and the final result will be the filling up of the present channel.

To prevent the dangers which the present condition of the river seems to threaten, all that is necessary is to assist nature, or, in other words, to remove the obstacles that prevent nature from working to accomplish our desired end. Nature sends water enough from the interior to make a channel for itself, but before it reaches the gulf, instead of having its united strength concentrated in one channel, it is permitted to dissipate it by dividing itself into many channels, thus diminishing its volume in the main river, increasing its velocity, and destroying its power of relieving itself. Therefore it is that we see, where the water is united, the channel is deep, and sufficiently large to answer all the purposes of a river; and where it is divided and wasted among innumerable branches or outlets, as it is before reaching the gulf, nature is no longer able to relieve itself, and the mouth remains choked up with an accumulation of sedimentary deposit, upwards of

100 feet higher than the bottom of the bed opposite New-Orleans. Had the volume of water which flows down from above been prevented from wasting its strength among so many outlets, its weight and velocity would have been sufficient to have swept away long ago this great mass of deposit; and the water above, no longer kept back by the retarded velocity of the water in front, would flow down with such an increased velocity, as would not only serve to keep the channel always open, but by lowering the surface of the river, render the recurrence of a crevasse no longer possible.

The only remedy, therefore, is to deepen the channel; and this work may be commenced at the mouth. Let one of the passes which at present is the deepest, be selected. Let the volume of water which enters the upper end of the pass, be prevented from dividing, thereby decreasing its velocity and dissipating its strength, until it reaches the gulf. Let all the outlets on either side of the pass be closed, so that the water may be able to bring its whole and undivided weight and velocity to bear on the vast accumulation of soft mud at the mouth. The immediate and necessary result must be, the deepening of the bar.

In proportion as the mouth deepens, the resistance will diminish, and the velocity increase, by which means the acting power of the current being increased, the removal of the bar, and the deepening of the mouth, will progress still more rapidly. The water, being thus relieved by the deepening of the mouth in front, will not only flow more rapidly through the pass, but will make way for the water above, which is now retarded by the weight of the water in front kept back by the resistance of the bar. This, again, will then flow with an increased velocity, and in turn make more rapid way for the accumulated water still higher up. Thus, an increased velocity extending far up the river, will give a more immediate relief in time of flood, and also an increased power to render the continuation of the relief steady and permanent. Having commenced the work at one pass, the same principle could be applied to another, which I have no doubt could be opened to an improved navigation also; for enough of water passes by New-Orleans to keep both channels open, and navigable for all ships, if it could be kept from distributing its volume, and thereby wasting its strength into any other outlets than these two. The same principle also could be carried as far up the river as might be thought necessary.

It would be, however, entirely unnecessary to attempt to carry this principle so far up the river as to apply it to the La Fouché, Plaquemine, and Atchafalaya, for there is below the lowest of these outlets enough of water to keep the two mouths open and clear, and, if properly confined to its normal channels, to preserve their depths. Besides, those outlets being navigable, there are vested rights interested in keeping them open, that could not now be disturbed. But I do think it would be advisable that every outlet, not navigable, should be closed, as every addition to the volume of water in the river will increase its velocity, and consequently its power, to deepen its channel, and thereby relieve itself.

Having thus deepened the mouth and given relief to the water below, and also increased velocity to the water above, something might be done to make the channel in some places more direct, and the banks, wherever it was possible, more uniform.

Where there was a bend that could be cut through, without any extravagant expenditure of labor or money, whereby the course of the river would be made materially shorter and more direct, it should be done. This would increase the fall, and consequently the velocity and power of the current.

Where the channel is contracted into a space narrower than the required breadth of the river, by any obstructions, geological or accidental, these obstructions should be removed, and the channel opened to its proper breadth. Where the channel, on the other hand, has been permitted to spread itself over a space wider than usual, it should be confined to the normal breadth.

All islands and sand-banks in front of a projecting bank, or in the middle of the river, should be removed, and those situated in front of a concave bank, and partly outside of the proper channel, should be joined to the continent.

The object of such changes must be obvious. It is that, by removing the irregularities of the channel, the least resistance may be opposed to the current, and an uniform velocity be given to it, so as to aid it as far as possible, in establishing and preserving a permanent uniformity in the channel itself.

Having thus improved the mouth, channel and course of the river as far as may be necessary to the permanent interests of those who live upon its banks, which are intimately connected with those improvements, the next to be attended to would be the levees;—though there is, in reality, no good reason why all these several improvements may not go hand in hand, and be carried on as near as may be necessary at the same time. The construction of levees, as it is, in fact, a matter of general interest, so it should be made an object of public care. They should be constructed in accordance with some regular and uniform plan, recommended by competent skill, after careful examination, and with a due regard to solidity. A batture of — feet ought to be left between the channel and levees on each side.

These battures, in time of flood, would be subject to a considerable deposit of sedimentary matter, and thus would continue to rise higher, and become every year a better protection to the levees, and may furnish materials enough for their repairs. The height, and other dimensions of the levee, its mode of construction, distance from the main channel, &c., &c., might be made subject to legislative enactments, and a state officer appointed to see that their provisions are properly enforced. In this way only can the public expect that levees will be constructed of such uniformity, solidity and durability, as will not only ensure their ability to resist the action of the river in high floods, but will inspire with confidence every man whose interest, perhaps safety, is involved in the security they promise. Where they are left to the construction of individual planters, and the supervision of overseers, there can be no security.

But in order to carry out the improvements here suggested, in the manner they ought to be carried out, that is, with a view to permanent effect, it is necessary that proper steps should be taken to place within the reach of those persons to whom the direction and supervision of such works as may be undertaken, shall be entrusted with full and accurate information, in every respect, regarding the river and its outlets. The Mississippi should be surveyed from such points on the river as may be judged necessary to the mouth; not a mere topographical survey, but such an one as would be both geometrical and hydrometrical; and would give the most complete information with regard to the channel and bed of the river, the depth of the one and the character of the other, the height of the water in the channel at its ordinary stage and in time of flood as shown by the water-meter, the degree of velocity at various points, the quantity of sediment brought down, and the degree of velocity necessary to keep it from settling,—all such information, in fine, arising from a thorough examination of the river's channel, accompanied with correct special levels, maps and profiles, as a competent and experienced hydrotect, thoroughly acquainted with the principles on which river works should be carried on, must know to be requisite, in order to authorize him to undertake such works with any prospect of success. The outlets, Atchafalaya, Plaquemine, and La Fouché, from their commencement to their mouth, should be surveyed in the same accurate and complete manner. The effect upon them of a rise in the main river, the quantity of water they draw from the Mississippi at different stages of the river, and the velocity of their currents compared with that of the river, should be particularly noted. This information should be embodied in a complete and accurate report, accompanied by suitable maps and profiles, on which should be displayed the result of the actual measurements and examinations made.

Permanent water-meters should, previously to the commencement of these operations, be erected at various points on the river, and on each of its outlets, so that accurate information could always be obtained as to every change that takes place in the elevation of the surface or bed of the river, and its outlets. These are absolutely necessary to give complete accuracy to the hydrometrical measurements, &c.

In this way a mass of information could be obtained, which would enable a competent engineer to proceed with accuracy, despatch and certain success. Without this information, he would be working in the dark, without reliable *data* on which to base his plans, or enable him to carry out his views. Without it, no engineer, who has a reputation, will risk it in undertaking works, the effect of which he cannot calculate with any approach to certainty, and the success of which he cannot guaranty. Without it, no works that may be undertaken can be looked forward to, by the public, with any degree of confidence in their future security, or even present success. But with this valuable and necessary information before the public, there can be no difficulty in carrying out the suggestions previously made, provided engineers of competent skill and experience in hydrotechnics be selected to superintend and direct the improvements.

The bars at the mouth of the passes can be removed sufficiently to admit ships of any size to New-Orleans, the bed of the river can be deepened, the channel made in some degree more regular, uniform and direct, and the levees subjected to a regular system of construction, which, accompanied by the other improvements, can promise safety for the present and security for the future.

Mobile, January, 1850.

ART. III.—PACIFIC RAIL-ROAD.

REPORTS OF THE COMMITTEES OF BOTH HOUSES OF CONGRESS.

ALTHOUGH we have been disposed always to press a *more southern route* than that proposed by Mr. Whitney for a rail-road to the Pacific Ocean, we have never once doubted of the *practicability* and *great commercial value* of his, and that in its plan and details it embraces the *only* constitutional mode of effecting the great work, whether through the agency of that gentleman or through any one else.

Our hopes of a more southern route, we are now in fairness compelled to say, are almost entirely at an end. If there were all the merit in the world in its favour, the numerical strength of the North is against us; and when has the exercise of that strength ever been forborne? It is idle to talk about impracticabilities; and if there is one argument stronger than another in support of our assertion, it can be found in the fact, that the reports, resolutions, memorials, and addresses of the late Memphis Convention, have received not the slightest consideration or attention from Congress, and are destined, it is believed, to lie upon the table until doomsday.

Instead of *no road at all*—for it is certainly reduced to this—we unhesitatingly prefer Mr. Whitney's as the only alternative, and fear that it is one of the few chances left of turning the public lands into any advantage which shall be shared alike by all of the states. The cry against land and monopoly, which has been raised at the North, already enters Congress, and will exercise a despotic sway there. At every session, millions of the public domain are recklessly squandered. The late "Bounty Bill" takes off a third, if not half as much as Mr. Whitney asks, at a single swoop. A desperate game will be played over these spoils at the next Presidential canvass, and the chances are a hundred to one, that before five years this prolific source of revenue will be entirely cut off. The decree has almost been registered already, that the public lands shall henceforward be *GIVEN AWAY* and not sold.

Thinking in this way, we do not hesitate to publish the annexed article from the pen of a friend, remarking, at the same time, that whilst we agree with it in the main outline, there are particulars from which, were it necessary for present purposes, we would dissent. By examining the papers from our own pen in the Review upon the subject, the reader will readily learn these particulars. We have no secrets in the matter, and have always spoken plainly. Mr. Whitney's road is only one of half a dozen which, in a century from this, will cross the great body of our continent to the Pacific, as they now cross from the valley to the Atlantic Ocean. They will not interfere with each other, but create distinct

lines of trade, and travel, and population. If the *first* be given to the North, there is consolation to the South that she will come in for a share before the final day, in this as in other matters over which Congress has *now* control.—(EDITOR.)

This is a subject which has occupied much of the public attention during the last five years, and its importance since the acquisition of our Pacific possessions is so manifest, that all admit the work must be, and but few doubt that it can, be accomplished in some way.

Mr. Whitney, the projector of the stupendous enterprise, has been untiring in his efforts and energy in making the subject known to the public, and in urging it upon the consideration of Congress; and from the favorable reports of different committees of both houses, as also from the very favorable impression he has made upon the minds of the members and upon the public at large, it was expected that some definite action would have been had before this. In the meantime, sectional and local interests, and personal jealousies, have reared themselves in opposition, and possibly placed in danger this, the only feasible plan, for the great work, which may now be defeated for ever.

The South have generally favored Mr. Whitney's scheme, and several southern states' legislatures have adopted resolutions strongly in its favor, recommending its adoption, &c.; but since the acquisition of California, and the increased agitation of the slavery question, she has felt a strong desire to have the road located as far south as possible. The two conventions held last fall, the one at St. Louis and the other at Memphis, may be said to have represented local interests. St. Louis and the adjacent country urged St. Louis as the only suitable starting point, while Memphis as warmly supported her position, and the two together were antagonistic to Mr. Whitney, because his plan could not accommodate either. These two conventions were unanimous on the great importance of the work, and declared it must be done. Mr. Robinson, chairman of the Committee on Roads and Canals, in his able report to the House of Representatives, which is now before us, says, in speaking of the two conventions, "but while they have seemed to prefer a more southern route, or a more southern point of departure than that proposed by Mr. Whitney, they have pointed out *no means* of executing their respective plans, except by dependence on the national treasury; and the committee think, that if those conventions had been brought to the question of *means* they would have been confounded. None can deny that this is the *sine qua non* of questions on this subject. For the grand trunk road with three branches it was agreed, first, as to the *means*, that the government must take the work in hand; in other words, the national treasury is to furnish the means out of the proceeds of the public lands. Now it must be seen, that the three branches from the Mississippi to Independence must first be constructed, for the transport of materials to and westward from that point for all the necessities of the road, as well as for progressive settlement, as there are little or no materials beyond.

"Let us, then, come to the real truth of the case, and we shall find, as your committee believes, that after the soldiers' warrants are satis-

fied, there will not remain enough of available land to build these three branches to Independence. Whence, then, are to come the *means* for this trunk road from Independence to the Pacific? The question of means is therefore exhausted, and falls to the ground, on any other plan than that of Mr. Whitney. Your committee have reason to believe, that the government itself, with all its means and credit, would sink under the attempt to build this road on any other plan." And the committee, throughout the report, show conclusively, that no other plan than Mr. Whitney's would receive the sanction of Congress, or be recommended by a committee.

The report of Senator Bright, chairman of the Committee on Roads and Canals, takes the same ground in the most decided manner. Mr. Bright is favorably known to the South, as well as to the whole country, for practical and sound constitutional views; we take great pleasure in making extracts from, and comments upon, his lucid and able report.

He goes into an examination of the other plans—of which there are three—as compared with Mr. Whitney's:—

"First. A government work directly.

"Second. The loan of the government credit to a company incorporated for the object.

"Third. Setting apart a specific portion of the national revenue from the sale of the public lands, leaving the work still in the hands of the government."

All of these plans the committee pronounce as unconstitutional and impracticable. The latter, in addition to its possessing all the difficulties and constitutional objections of the first and second, is impracticable on account of means; for, with the disposition which has been and is being made of the public lands, it is rendered certain that the receipts into the treasury will be altogether inadequate for such a purpose. But the insurmountable difficulties presented in these three plans are superseded by substituting *the principle of private enterprise and private responsibility*, as proposed by Mr. Whitney's plan, which is, that a belt of territory sixty miles wide—that is, thirty miles on each side of the road—with its eastern base on Lake Michigan, and its western on the Pacific, comprehending about 78,000,000 of acres, shall be sold and appropriated to this object, to be accounted for by Mr. Whitney at the national treasury, at ten cents per acre—good, bad and indifferent—amounting to nearly \$8,000,000.

And "the bill provides, that the first eight hundred miles of good land shall be divided into sections of five miles each—that is, five miles by sixty; and that, after Mr. Whitney shall have built his first ten miles of road, and after it shall have been accepted by the government commissioner appointed for the purpose, as being in all things a fulfilment of Mr. Whitney's engagements, and not till then, he shall be entitled to sell the first section of five miles by sixty, as well as he can, to reimburse himself for his expenditures on the first ten miles of road already completed and accepted; and so on, in the same manner and on the same conditions, for

every successive ten miles of the first eight hundred, leaving every alternate section of five miles by sixty untouched, with all its increased value created by the road, as public security for carrying on the work to the Pacific. Thus, when the road shall have been completed through this eight hundred miles of good land, the government will hold, as security for the extension and final completion of the work, the road itself, all its machinery, four hundred miles by sixty of these good lands, untouched, and raised to a high value by this public work, together with the entire remainder of the belt to the Pacific.

"The bill also provides, that the titles of the lands sold by Mr. Whitney shall be given to the actual purchasers by the government, and not by him, and that all remainders unsold shall be disposed of at public auction, at the end of ten years after the road shall have been completed on each ten mile section—that is, the unsold parts of Mr. Whitney's sections of five miles by sixty; and this, to prevent the reservation of lands for speculation. From the end of this first eight hundred miles to the Pacific, where the lands are poor and unavailable, the bill provides that Mr. Whitney shall proceed as follows, to wit: that, at the end of every ten miles of road completed and accepted as before, he shall be entitled to sell the whole section of ten miles by sixty, to reimburse himself, as far as the sales will go, for his expenditures on that ten miles of road; and for any deficit, he shall be entitled to go back and sell at public auction, to the highest bidder, in lots of forty to one hundred and sixty acres, as much of the reserved, untouched lands on the first eight hundred miles as this deficit may require; and so on, and in the same manner, for every succeeding ten miles, to the Pacific, selling the lands of each ten mile section after the road shall have been completed and accepted, and going back to sell the reserved lands only when and so far as there may be a deficit, as before; and all this under the supervision and authority of the government commissioner, whose duty it shall be to see to the fulfilment of the terms of the bill.

"If, at any stage of this work, Mr. Whitney shall fail on his part, the bill provides that all his rights shall be forfeited to the government, and that the road, so far as completed, with all its machinery, shall belong to the government; and Congress may sell or dispose of it as may be deemed most for the benefit of the nation; and all the unsold and reserved lands would revert and belong to the nation, the same as if this act had never been made a law. And if Mr. Whitney should die, his successors would be under the same obligations, and liable to the same penalties, on the same conditions. The bill also provides, that, when the road is completed to the Pacific, with its machinery in operation, to the satisfaction of Congress, so that the government can in no way be made liable for the expenses of its operation and repairs, then whatever, *if any*, surplus lands may remain unsold, shall be sold for the account and benefit of Mr. Whitney; and whatever surplus money may remain, after paying all charges against said road, shall be his, as a reward or compensation for this work, and the road and its machinery shall be considered as belonging to the nation. Although the bill provides that the title thereto shall vest in Mr. Whitney, still Congress retains the power to fix and regulate the tolls for both passengers and merchandise, so that no more shall be earned than barely sufficient for the expenses of operation and repairs, and the United States mails are to be transported free. Congress will hold the power to give the management of the road to any other party, at any time when Mr. Whitney may fail to operate it as the wants of the people require. Thus it is clear to your committee, that Mr. Whitney's only chance of gain from the enterprise is in the hope of making the lands, by building

the road through them, produce him a sum *exceeding* what will have been his actual outlay for the construction of the road, its machinery, and the \$8,000,000, or the ten cents per acre, which he is to pay into the treasury of the United States for the entire belt of lands—and this all a *creation* from his efforts and means, a *positive creation* and a *positive gain* to the nation.

"Your committee believe, that, by the provisions of the bill, it is not possible that the government or public should risk or lose anything; and so far as the road goes, though it should not be completed, the public will be *gainers*. In any contingency whatever, should the road be commenced and continued for one hundred or two hundred, or more miles, the government will hold a capital under its control for a new arrangement, if required, to complete the road, without loss and without taxing the people.

"In this manner, and in the execution of this stupendous work, the country will realize, as your committee believe, all the energy and effect of private enterprise, without risk and without expense, and will have, in the end, a public work costing upwards of \$60,000,000, with \$8,000,000 in the public treasury, for lands which, without the road, would never produce to the government \$10,000,000, and when the same work done by the government would probably cost near \$200,000,000, which would leave a public debt of at least, as your committee believe, \$190,000,000, for the interest on which would be required a perpetual tax on the property and industry of the nation; whereas, by the provisions of this bill, it will not cost the nation a single dollar, and the public treasury will have \$8,000,000 in its vaults for these lands."

It is Mr. Whitney's declaration, that he can complete the road to the Pacific in fifteen years, but the bill limits him to twenty-five years, divided into three sections; a failure of one is a forfeiture of all.

The committee add, that the road built after this plan, subjecting transportation to no tolls, except only for its expenses of operation, would accomplish the great objects aimed at, and the products of the Mississippi basin could be taken to Asia, and exchanged for their rich manufactures and products. The commerce of Europe with Asia would pass over it; in a word, the whole commerce and intercourse between a population of 250,000,000 in Europe, and 500,000,000 in Asia.

The committee also considered, that a "rail-road to the Pacific, if obliged to charge tolls on transportation to earn the interest on its cost of construction, could not be sustained; the necessarily high tolls would exclude business; and are of the opinion that the road can never be built and sustained *except by capital created by itself*; as by the plan proposed; and that it would be doomed to failure if attempted by the government, or on the credit of the government, as the people would never submit to perpetual taxation for the interest on its cost. The cheap transport to be obtained by this plan involves the only principle on which this road can be made a successful enterprise, and the more satisfactory, because it will not cost the government or people a single dollar."

"Your committee think it would be very difficult, and enormously expensive, if not impossible, to construct such a road through a now entire

wilderness, on any plan of means, unless settlement can keep pace with the work; and that this plan, as it connects the sale and settlement of the lands with the work itself, is not only the *only* sure plan of means, but by it the work will advance as rapidly, or more so, than on any other plan. Besides, these lands, with this great highway through their centre, could not, in the opinion of the committee, fail to command any amount of money required for the progress of the work, as their daily increasing value would render them the most safe and most profitable investment for money.

"Your committee believe that the building of the road will undoubtedly create facilities for settlement on its line for at least the 800 miles of good lands, and cause a demand for them to an available amount of means equal to any possible judicious application of *means* to the construction of the work; and the reserved half of lands, daily increasing in value, would certainly be a sure source of capital for an equal or greater distance beyond the good and through the poor lands, a part of which latter would no doubt be made available for settlement by means of the road.

"Objections have been urged against this plan,

"First. That it is too immense to be placed under the management of one individual.

"Second. That its magnitude, and time required to complete it, would render it impossible to procure capital for its execution.

"Third. That it would be unwise to place such a work, subject to the contingency of the life of a single man."

1. Now it is presumed, that these objections have been made by those who have not examined, and do not sufficiently understand the grand principles of the plan. The committee say, "any one may say, that a rail-road to the Pacific can, and ought to be built; and that this or the other is the better plan and best route; but no one will pretend that a work of such magnitude can be accomplished without *means*, and means certain and available to an immense amount." And the man who has devised the *only feasible plan*, in all its details, from beginning to end, for the accomplishment of this stupendous work, which is to make a complete revolution in the routes of commerce, bring the great bulk of the trade of the world on its line, and make our country the great *focus* of the commercial transactions of all nations; making the heart of our country the centre of the world, its banking house and its great exchange, without the outlay of one dollar by the nation, or any burden or tax upon the people—the man who has devoted to this great object, exclusively, more than eight years of the best part of his life, at his own expense, and procured the almost unanimous approval of some twenty state legislatures, as well as of public meetings in many of the principal populous cities throughout the country—the man who originated the whole subject, long before our possessions in Oregon were secured to us, and the means of bringing it to its present position before Congress and the public—if he is not competent, under the complete control of Congress, to execute his own designs, then who, we ask, is the man, or who are the men combined, to whom the nation can look for the accomplishment of the undertaking.

2. The second objection, the impossibility of raising capital, owing to the magnitude of the work, time, &c., we think is without foundation, because it will be seen on examination, that if necessary, each

ten mile section of road may *depend distinctly and exclusively* upon its own section of five miles by sixty, (the half of the lands through which this ten miles may have been built;) that is, a man or men may loan the money to build one section or ten or more sections of ten miles each, and when each section of ten miles shall have been completed, the sale of the land would commence, and as fast as sold, return the loan, so that the loan may be paid back, just as soon and as fast as might be desired, though the security would be constantly increasing, by means of the road, as well as by the influence of constant settlement; that each section of ten miles may depend *entirely* upon itself, and be settled by itself, without retarding the progress of the work. This is the great principle by which this tremendous enterprise is to be made as simple as any ordinary, every-day transaction; without corporate powers from Congress; without a company, without stock, and without dividends—and compared with the effect which all rail-roads have had in increasing the value of agricultural lands on their line and in their vicinity, we think there can be no doubt of the ability of the lands on the line of the proposed road, to furnish all the means that may be required for its most speedy construction.

3. The objection to its being subject to the contingency of the life of one man.

This is answered in part by the answer to the second, because a machine so simple, once put into operation, as it provides in itself the power for its own motion, will perform its course almost alone, and in case of Mr. Whitney's death, it would run on the same with his successors.

On the subject of a route for the road, the Committee of Congress have made that entirely subject to, and dependent on, the means.—The lands being the only source of means, can be made available only by building the road over them; and as the sale of the lands to Mr. Whitney is a positive sale, and the construction of the road by him strictly and purely an individual enterprise, neither the committee nor Congress can decide upon a route for Mr. Whitney.

"He himself must decide, first, whether the lands on the line of his proposed route can be made available for means; next, whether they will furnish material—timber, stone, &c.—for the work, and for progressive settlement, as the work advances to where such materials do not exist; and whether facilities for the commencement of such a work, with cheap and certain means of transport, can be had and do exist at his starting point. Then, having ascertained that his route is feasible, his way is clear, and, as your committee believe, his progress certain. But of this he must decide for himself, as the risk and responsibility are all his own. An attempt to decide any of these points by your committee or by Congress, might, and probably would, render the whole plan impracticable.

"No plan or route for a rail-road to the Pacific, in the opinion of your committee, is feasible, unless they together furnish an adequate and obtainable amount of capital or means, and a sufficiency of rude material, on or at the commencement of the route, for the road, for settlements, for towns, villages, &c., and fuel, &c. These, as your committee believe, are absolutely necessary, not only for the road itself, but as the only means, with the road, of rendering the lands available for settlement for the great dis-

tance where those materials do not exist. Your committee believe, as informed by Mr. Whitney, that available lands, with timber, other material, and with facilities for the work, do not exist and cannot be had on any other route, so as to justify the commencement of the work with any possible hope of success, and that he would not attempt it on any other route. There is no plan before your committee in competition or conflicting with Mr. Whitney's that does not depend, either directly or indirectly, on the public treasury, or on government credit, for means.

"Moreover, your committee believe it will be found, by actual measurement, that the route proposed by Mr. Whitney is the most direct and shortest for commerce from all our Atlantic cities to the Pacific, by the South Pass, (probably the only feasible route,) and around the globe—which is the great end in view. It is shorter, for example, from Baltimore to the great South Pass by more than three hundred miles than by way of St. Louis; and the eastern terminus, or the crossing of the Mississippi river, reckoning on other connecting lines of railroad existing and projected, is nearer to Mobile by three hundred miles than to New-York, and five hundred miles nearer to Mobile than to Boston; and, as appears to your committee, it would be more fair and more equal for all our Atlantic ports than a more southern route; and, amongst the several routes proposed, this appears to be the only one by which a line of rail-road can be extended from our Atlantic Ports to the Pacific without being broken by rivers or waters which cannot be bridged—a most imperative necessity for such a highway of commerce across this continent, as it is a well-known fact that transshipments and commissions often amount to as much or more than the transport."

The report exhibits our commerce with all Asia to be limited in its variety and amount, being an aggregate of but about \$13,000,000 per annum, and a balance against us of some \$7,000,000 to be paid through England; while the commerce of Europe with Asia, in which we do not participate to the value of one dollar, amounts to an annual aggregate of \$250,000,000. That our commerce with Asia cannot be augmented to any advantage to us while on its present route, time and expense being against it, as well as being subject to damage and destruction by climate, &c., &c. Nor will our possessions on the Pacific, however populous they may become, increase the commerce of our Atlantic slope and the Mississippi basin with Asia, because, separated and distinct in interest from us, and enjoying the same climates, their general products being also the same as ours; their markets and exchanges—their commerce and intercourse, must be with the different parallels of their own slope or coast, with the Islands of the Pacific and with all Asia, in the benefits from which we can participate only to a limited extent. The great objects of this road, then, are, to change the route for the commerce of Europe with Asia to it, and render that commerce tributary to us, on which the road must mainly depend for its support, and to make a cheap means of transport for the products of the great valley of the Mississippi to the markets of all Asia, and on a parallel of latitude which will not subject those products to damage and decay, and so far north that the sphere of the globe will shorten the distance so as to insure the accomplishment of these objects. And it is worthy of remark here, that all these views were placed before the public by Mr. Whitney

in his first memorial to Congress written in 1844, long before our possessions in Oregon were secured to us. The Committee say :

"Distance, time, and cost of transport, are the controlling laws of trade. By measuring a globe, it will be seen that on the parallel proposed for this road is the shortest line between our Atlantic ports and Asia, and the shortest line between Europe and Asia across our continent ; and it is worthy of remark, that this belt around embraces, and that this route would accommodate, nearly the entire population of the globe—that is, the enterprising and industrious part. And from the estimates of practical engineers and rail-road managers, it is evident that the low rates of transport between Asia and our Atlantic ports by this proposed road would be less than on the present route in ships ; and it is here pertinent to remark, that freight on rail-roads is estimated by weight, whereas on ships it is estimated by measurement of forty feet per ton, requiring two tons measurement of teas and ordinary merchandise to make one ton weight. To make a comparison, it is necessary to double the price per ship to equal the ton weight by rail-road. And it is shown that vessels bound from Europe to Asia, and from Asia to Europe, would never go by the isthmus of Mexico, even with a ship canal ; for the distance from Canton to London would be increased 2,228 miles beyond the present route around the Cape of Good Hope. From Singapore and other ports, the difference would be still greater against the isthmus, and with always favorable trade winds, for the voyager from Asia to Europe by the Cape of Good Hope. Between New-York and Canton, though the distance by the isthmus would be about 1,100 miles less than around the Cape of Good Hope, still the always favorable trade-winds would make the Cape the quickest return route ; and the return voyage is always the important one as to time.

"The distance from New-York to China, by Panama, is 13,138 miles ; by the Cape of Good Hope, it is 14,255 miles ; time by sails one hundred to one hundred and sixty days. From New-York to Shanghai, in China, by the proposed rail-road, is 8,361 miles ; time by steam, twenty-five days. From Canton to London, by the Cape of Good Hope, is 13,330 miles ; by Panama, 15,558 miles ; time by sails, one hundred to one hundred and sixty days ; voyage out and home, average, over a year. From London to Shanghai, by the proposed road, is 11,361 miles ; time by steam, thirty-seven days. From New-York to the mouth of the Columbia river, by steamers, and by the isthmus, is 6,600 miles ; time, about thirty-five days ; distance for sail vessels would, owing to the trade-winds in the Pacific, be much greater, and time would be three to four months. From New-York to the mouth of the Columbia river, by the proposed road, would be but 2,961 miles, and time from five to eight days. The results would be similar to San Francisco, or to any of our Pacific coast possessions, and the expenses of transit would always be in favor of the rail-road route, which, with the great saving of time, it being the great and controlling law of trade, would settle the question forever, as your committee believe, as to the routes of all or the principal part of the commerce between these great parts of the world.

"With these facts as to time and distance, which have been adopted and published in the reports of committees on this subject, in both houses of Congress, and authenticated from undoubted sources, your committee cannot doubt that the execution of this road, as proposed, is destined to revolutionize the entire commercial world, and its social and political influences cannot fail to be equally important."

The report is then summed up by stating,

"1st. The great importance and necessity of this work has been

shown by the Committee, also that the people have decided upon it, and on this plan, &c.

2d. That to attempt it from a dependence upon the public treasury, either directly or indirectly, or on the credit of the government loaned to a company for means, is impracticable; but if possible on these plans, the necessarily high tolls for the interest on its cost would exclude business, the work could not be sustained, and would fail to accomplish the objects aimed at. But

3d. Your Committee believe it has been shown that the plan proposed creates its own means, requires no tolls for interest on its cost, imposes no tax or debt on the nation or people, involves no constitutional or sectional question or difficulty, and, if executed, will, as your committee believe, accomplish the ends and objects aimed at.

And now come the important practical points to be decided on by your Committee and by Congress.

Will we sell these lands, now valueless and almost useless, as proposed, for a sum exceeding that which can be expected from any other source, besides under such restrictions and conditions as will guarantee the accomplishment of this great highway for nations?

“Or will we decide against this great work, promising these vast and important results—abandon them all—let our Pacific possessions separate and form an independent nation, controlling, as they will, the immense fisheries and commerce of the vast Pacific, with the commerce of Japan, China, and all Asia? Will we decide that the lands which can now be applied to and effect the accomplishment of this stupendous and truly national work, shall be wasted away for party political capital, and other purposes, whereby the nation can never receive any direct benefit—when, too, the objects urged by those who wish to dispose of the lands to settlers without pay would be more immediately effected in the accomplishment of this work, because its construction would give employment to settlers, and create the means to pay for their lands, and place them a hundred fold better off than to have the lands free of cost without the road, which is the only means by which their products could reach the markets, so as to yield a return for their labor?”

“Your committee cannot hesitate in forming a decision upon this subject, not doubting that those who examine it will be impressed with the same views, and form the same conclusions as your committee have done. Therefore, your committee recommend the adoption by Congress of the bill proposed, and urge its immediate adoption. The various plans and bills now before Congress for disposing of very large amounts of the public domain, together with the constant demand for actual settlement, particularly at the first part or commencement of the proposed route, are rendering the execution of this plan more and more difficult every day; and your committee believe the time must soon arrive when these lands, on the first part of the route, so desirable for immediate available means, and possessing timber, materials, and facilities for commencing and carrying on the work into the wilderness, will be so far disposed of, for other purposes, as to render the accomplishment of this work doubtful or impossible. And to wait for further surveys and explorations, as has been proposed by some, would, in the opinion of your committee, be the defeat and abandonment of this plan forever; and besides, the authorization of surveys for a railroad to the Pacific would justly be considered by the people as sanctioning the commencement of a government work, which

your committee cannot recommend, nor would it be sanctioned by the people, as your committee believe; neither do your committee think it at all necessary, nor does this plan require, to delay the adoption of this bill for further surveys. The rivers have been examined by Mr. Whitney himself, to ascertain at what points they can be bridged. From the lake to his point on the Mississippi, it is well known that there are no difficulties on his route; from the Mississippi to his point on the Missouri, his route is without obstacles; and thence to the South Pass, it is well known that impediments do not exist. While these three sections are being constructed, the route thence to the Pacific can be explored, surveyed, and fixed upon.

"The route from the lake to the South Pass, as your committee are informed, has no parallel for feasibility on the face of the globe; and from the South Pass to the Pacific, the explorations of Colonel Fremont and others, as well as the immense emigration to Oregon and California, abundantly certify that it is feasible. Besides, the streams which wend their way all from the South Pass to the Columbia and the Pacific, indicate a favorable route, it being a well-known fact, that there are no very great falls or rapids in the streams emptying into the Columbia; and that river, the only one through all our possessions running west from the Rocky Mountains to the Pacific, has cut its way and made a route through the mountains to the ocean."

We have devoted much time and space to this great subject, more important and more vast than any subject which has been before this or any age; and we hope our readers will patiently read and carefully examine it. It involves questions of immense—yes, incalculable importance, alike to us as a nation and to all mankind. A decision must now be given upon it; the coming session of Congress must adopt or reject it. Our readers will have seen what is said by the Senate Committee, and the House Committee speak the same language, "that the only available means will very soon be applied to other objects." Then this great work must be abandoned or undertaken as a government work; and it is safe, we think, to say decidedly, that as a government work it cannot be sanctioned by either of the great parties of the South.

We repeat, this is the most important question of the age. In a national and philanthropic view, we cannot hesitate in our decision. Here is a work, the execution of which in money would probably cost \$200,000,000 or more; it promises to revolutionize the commercial, and perhaps the political and social relations of the great bulk of mankind, subjecting all to pay tribute to our nation. And by this plan which we are now asked to pronounce upon, the work, instead of involving the nation in debt, and subjecting the people to burdensome taxation, will not cost the nation a dollar, but will place money into the public treasury—will give to the nation a *free* highway for all the world—will bring the waste wilderness into usefulness, and give homes and plenty to millions now useless, destitute, and oppressed—and would spread its benefits not only over all our country, but over all the entire globe.

Philanthropically and nationally, there could be no hesitancy in our opinion; and did peace and harmony exist between the North and

South, the latter we believe would, with one voice, say Amen to Mr. Whitney's proposition. But as it is, the North continually aggressing upon the South, we may justly hesitate before we enter into further partnership concerns with partners whom we know to be opposed to us in every feeling and interest.

Therefore, after what we have said in favour of this project considered nationally, we will now continue to examine it as to the interests of the South alone.

1st. The route proposed is all on what is termed free soil.

2d. It is beyond a doubt that the building of the road would greatly accelerate the settlement of the entire line to the Pacific. On this fact depends the success of the work. By many whose opinions we are bound to respect, it is feared that such a result would be prejudicial to the South, by increasing a population hostile to our institutions.

We propose to examine these objections, first, with a view to the continuance of the union of the States; and, secondly, with a view to the dissolution of the States, and the formation of a southern confederacy. But before going into this examination, we will admit that this work will be undertaken either on Mr. Whitney's plan or by the government. If undertaken as a government work, it would be a powerful political engine, and used by the North against the South, and made the capital for the Presidential chair. Mr. Whitney's plan is already violently opposed at the North by two aspirants to the Presidency.

The first, objection to route.

Now, as there is no plan except Mr. Whitney's that is not dependent, directly or indirectly, on the public treasury for means, which can never be sanctioned by the South; and as there is no other route which can furnish an adequate amount of land to induce Mr. Whitney to undertake the work, and as he takes upon himself all the risk of making the lands produce the means for the work, certainly no one can desire or expect any man to undertake to accomplish that, which he himself says is impossible. Of all this he must decide for himself. Were the work to be done by the government, then it might be otherwise, and there would arise a controversy for the location of the route which would most likely defeat all; but as it is, there is left to us no choice, except to decide between Mr. Whitney's plan and no road at all.

The passage of the bill granting alternate sections of the public lands to aid in the construction of the Mobile, Chicago, and Galena road, renders it pretty certain that a line from Galena, through Illinois and Tennessee, connecting with the lines to Mobile, Savannah, Charleston, and Norfolk, will be completed, giving to the South a direct connection with Mr. Whitney's proposed route; and the committee of Congress have shown that this line is less distant from all the above named cities to Mr. Whitney's road, than from the northern Atlantic cities to it, with a far more favorable grade. Would not this give to the South an advantage over the North? And besides, we have the Mississippi open and navigable for a greater length of

time each year than the lakes and canals. The committee have shown that Mr. Whitney's proposed route to the Pacific is not longer even from Charleston, than any other route which has been named from Charleston to the Pacific. Is it not, therefore, the interest of the South to run up east of the Mississippi, and connect with him as far north as possible?—because every thing west of our line must first come east to us, and could be brought through the great funnel of Tennessee and Georgia, to our southern Atlantic ports, at a less cost of transport than if taken further north.

The second objection,—the acceleration of settlement on the line of the road, and its prejudicial influences, &c.

The building of the road would undoubtedly concentrate and accelerate settlement; but it would be drawn from other sections, *also free soil*, too remote from, to participate in the benefit which this road would confer; and, besides, should this road not be undertaken—and we have admitted that it must be, either on this plan or by the government—the works and improvements now underway, with the demand and high price for labor all over the free states, will for a long time increase the population of those states nearly as fast as if this road were being built, so that the aggregate of northern votes could differ but little; but the building of the road would draw from other sections, and particularly from our large cities, that population now without homes or interest, except for their daily bread; now the machinery for the demagogue, for excitement and mischief. But place the same persons on the line of this road, and they would soon become land owners, *not land reformers*. They would have homes, comforts, and plenty, and an interest in every thing around them. Such people cannot be used by the demagogue. They would have means to supply all their wants, and could consume largely of southern products, and could not be supplied from any other source. Being agriculturists, and desiring no protective legislation, would not their wants and their interests be more directly connected with the South than with the North and East? And is it not a fact, that a great part of the feeling of the North against the South has originated from the fact, that the South generally opposes the protective policy on which the North are so determinedly bent? And who, what body of men are so easily wrought upon to madness and destruction as the inmates of the crowded workshops of the manufacturers, when thrown out of employment by their masters, and themselves and children reduced to the last morsel, to influence the acts of Congress? Such a population is dangerous to the interests of the South, and we witness it daily; but were the same persons placed on the line of this road, with their farms, their houses, and substantial interest, they would, we believe, support and strengthen the South.

Again, these lands lie north of us, and is there any other way by which we can get any part of our interest in them? Is it not well understood that they are to be made the capital against the South for the presidency? And do we not see many of the leading politicians North proposing to give them away without any direct benefit to the nation? Look at the movements of *the land reformers*, the disorganizers

who deny the right of man to buy or sell land, with their regular annual congresses : and their creed is becoming a test question at the North and North-west ; politicians are rapidly falling in with them, and, can any one doubt, that the plan of giving away the lands is popular and must succeed ? Should the Union continue, and God grant it may, then we think the course of the South is plain, and in favor of Mr. Whitney's plan. But should a dissolution take place, could the South in that event have any interest in these lands ? Is not the North by every plan, seeking, as rapidly as possible, to render them of no value ? See what the last session of Congress has done, and is proposing to do, with the lands—they are already reduced to nearly of no value.

But should the road be built on the plan proposed, it will be an individual enterprise, without tolls for dividends ; and the many interests it would accommodate, will, we think, be a guaranty that it would be kept so. The South would connect with it by the lines now in progress of construction, and we think the interests of the sections through which those lines are to run will be sure to force their completion, so that as a separate nation we do not see any reason to doubt that the South could connect with, and receive great benefit from this road. And in case of dissolution, the South would hold all the lands now on any southern route ; and if they could be made available for the means to build a rail-road to the Pacific, it would, no doubt, be done, and the same if the Union continues, so that we cannot see how Mr. Whitney's project should be made to conflict with a southern one, or with southern interests.

We repeat, *this question must be decided at the coming session of Congress* ; after that period the land which can now be made available, can no longer be made so, and any delays for the further explorations and surveys is wholly unnecessary, and would be the abandonment and defeat of this plan forever.

ART. IV.—CHANCELLOR HARPER'S MEMOIR ON SLAVERY.*

IN WHAT OUR SLAVERY DIFFERS FROM THE SERVITUDE OF OTHER COUNTRIES—GENERAL INFLUENCES OF SLAVERY.

THERE is something in this word *Slavery* which seems to partake of the qualities of the insane root, and distempers the minds of men. That which would be true in relation to one predicament, they misapply to another, to which it has no application at all. Some of the virtues of a freeman would be the vices of slaves. To submit to a blow, would be degrading to a freeman, because he is the protector of himself. It is not degrading to a slave—neither is it to a priest or a woman. And is it a misfortune that it should be so ? The freeman of other countries is compelled to submit to indignities hardly more

* Continued from November Number.

endurable than blows—indignities to make the sensitive feelings shrink, and the proud heart swell; and this very name of freeman gives them double rancor. If when a man is born in Europe, it were certainly foreseen that he was destined to a life of painful labor—to obscurity, contempt and privation—would it not be mercy that he should be reared in ignorance and apathy, and trained to the endurance of the evils he must encounter? It is not certainly foreseen as to any individual, but it is foreseen as to the great mass of those born of the laboring poor; and it is for the mass, not for the exception, that the institutions of society are to provide. Is it not better that the character and intellect of the individual should be suited to the station which he is to occupy? Would you do a benefit to the horse or the ox, by giving him a cultivated understanding, or fine feelings? So far as the mere laborer has the pride, the knowledge, or the aspirations of a freeman, he is unfitted for his situation, and must doubly feel its infelicity. If there are sordid, servile, and laborious offices to be performed, is it not better that there should be sordid, servile, and laborious beings to perform them? If there were infallible marks by which individuals of inferior intellect, and inferior character, could be selected at their birth—would not the interests of society be served, and would not some sort of fitness seem to require, that they should be selected for the inferior and servile offices? And if this race be generally marked by such inferiority, is it not fit that they should fill them?

I am well aware that those whose aspirations are after a state of society from which evil shall be banished, and who look in life for that which life will never afford, contemplate that all the offices of life may be performed without contempt or degradation—all be regarded as equally liberal, or equally respected. But theorists cannot control Nature and bend her to their views, and the inequality of which I have before spoken is deeply founded in nature. The offices which employ knowledge and intellect, will always be regarded as more liberal than those which only require the labor of the hands. When there is competition for employment, he who gives it bestows a favor, and it will be so received. He will assume superiority from the power of dismissing his laborers, and from fear of this, the latter will practise deference, often amounting to servility. Such in time will become the established relation between the employer and the employed, the rich and the poor. If want be accompanied with sordidness and squalor, though it be pitied, the pity will be mixed with some degree of contempt. If it lead to misery, and misery to vice, there will be disgust and aversion.

What is the essential character of *Slavery*, and in what does it differ from the *servitude* of other countries? If I should venture on a definition, I should say that where a man is compelled to labor at the will of another, and to give him much the greater portion of the product of his labor, there *Slavery* exists; and it is immaterial by what sort of compulsion the will of the laborer is subdued. It is what no human being would do without some sort of compulsion. He cannot be compelled to labor by blows. No—but what difference does it

make, if you can inflict any other sort of torture which will be equally effectual in subduing the will? if you can starve him, or alarm him for the subsistence of himself or his family? And is it not under this compulsion that the *freeman* labors? I do not mean in every particular case, but in the general. Will any one be hardy enough to say that he is at his own disposal, or has the government of himself? True, he may change his employer if he is dissatisfied with his conduct towards him; but this is a privilege he would in the majority of cases gladly abandon, and render the connexion between them indissoluble. There is far less of the interest and attachment in his relation to his employer, which so often exists between the master and the slave, and mitigates the condition of the latter. An intelligent English traveler has characterized as the most miserable and degraded of all beings, "a masterless slave." And is not the condition of the laboring poor of other countries too often that of masterless slaves? Take the following description of a *free* laborer, no doubt highly colored, quoted by the author to whom I have before referred:

"What is that defective being, with callous legs and stooping shoulders, weak in body and mind, inert, pusillanimous and stupid, whose premature wrinkles and furtive glance tell of misery and degradation? That is an English peasant or pauper, for the words are synonymous. His sire was a pauper, and his mother's milk wanted nourishment. From infancy his food has been bad, as well as insufficient; and he now feels the pains of unsatisfied hunger nearly whenever he is awake. But half clothed, and never supplied with more warmth than suffices to cook his scanty meals, cold and wet come to him, and stay by him with the weather. He is married of course; for to this he would have been driven by the poor laws, even if he had been, as he never was, sufficiently comfortable and prudent to dread the burden of a family. But though instinct and the overseer have given him a wife, he has not tasted the highest joys of husband and father. His partner and his little ones being, like himself, often hungry, seldom warm, sometimes sick without aid, and always sorrowful without hope, are greedy, selfish, and vexing; so, to use his own expression, he hates the sight of them, and resorts to his hovel, only because a hedge affords less shelter from the wind and rain. Compelled by parish law to support his family, which means, to join them in consuming an allowance from the parish, he frequently conspires with his wife to get that allowance increased, or prevent its being diminished. This brings beggary, trickery, and quarreling, and ends in settled craft. Though he have the inclination, he wants the courage to become, like more energetic men of his class, a poacher or smuggler on a small scale, but he pilfers occasionally, and teaches his children to lie and steal. His subdued and slavish manner towards his great neighbors shows that they treat him with suspicion and harshness. Consequently, he at once hates and dreads them; but he will never harm them by violent means. Too degraded to be desperate, he is only thoroughly depraved. His miserable career will be short; rheumatism and asthma are conducting him to the workhouse, where he will breathe his last without one pleasant recollection, and so make room for another

wretch, who may live and die in the same way." And this description, or some other not much less revolting, is applied to the "bulk of the people—the great body of the people." Take the following description of the condition of childhood, which has justly been called eloquent.*

"The children of the very poor have no young times. It makes the very heart bleed to overhear the casual street talk between a poor woman and her little girl,—a woman of the better sort of poor, in a condition rather above the squalid beings we have been contemplating. It is not of toys, of nursery books, of summer holidays (fitting that age), of the promised sight or play, of praised sufficiency at school;—it is of mangling and clear-starching—of the price of coals or of potatoes. The questions of the child, that should be the very outpourings of curiosity in idleness, are marked with forecast and melancholy providence. It has come to be a woman before it was a child. It has learned to go to market; it chaffers, it haggles, it envies, it murmurs; it is knowing, acute, sharpened; it never prattles." Imagine such a description applied to the children of negro slaves, the most vacant of human beings, whose life is a holiday.

And this people to whom these horrors are familiar, are those who fill the world with clamor concerning the injustice and cruelty of slavery. I speak in no invidious spirit; neither the laws nor the government of England are to be reproached with the evils which are inseparable from the state of their society. As little, undoubtedly, are we to be reproached with the existence of our slavery. Including the whole United States—and, for reasons already given, the whole ought to be included, as receiving in no unequal degree the benefit—may we not say justly that we have less slavery, and more mitigated slavery, than any country in the civilized world?

That they are called free, undoubtedly aggravates the sufferings of the slaves of other regions. They see the enormous inequality which exists, and feel their own misery, and can hardly conceive otherwise, than that there is some injustice in the institutions of society to occasion these. They regard the apparently more fortunate class as oppressors,—and it adds bitterness that they should be of the same name and race. They feel indignity more acutely, and more of discontent and evil passion is excited. They feel that it is mockery that calls them free. Men do not so much hate and envy those who are separated from them by a wide distance, and some apparently impassable barrier, as those who approach nearer to their own condition, and with whom they habitually bring themselves into comparison. The slave with us is not tantalized with the name of freedom, to which his whole condition gives the lie, and would do so if he were emancipated to-morrow. The African slave sees that Nature herself has marked him as a separate—and if left to himself, I have no doubt he would feel it to be an inferior—race, and interposed a

* Essay on Elia.

barrier almost insuperable to his becoming a member of the same society,—standing on the same footing of right and privilege with his master.

That the African negro is an inferior variety of the human race, is, I think, now generally admitted, and his distinguishing characteristics are such as peculiarly mark him out for the situation which he occupies among us; and those are no less marked in their original country than as we have daily occasion to observe them. The most remarkable is their indifference to personal liberty. In this they have followed their instincts, since we have any knowledge of their continent, by enslaving each other; but, contrary to the experience of every other race, the possession of slaves has no material effect in raising the character, and promoting the civilization, of the master. Another trait is the want of domestic affections, and insensibility to the ties of kindred. In the travels of the Landers, after speaking of a single exception, in the person of a woman who betrayed some transient emotion in passing by the country from which she had been torn as a slave, the author adds:—"that Africans, generally speaking, betray the most perfect indifference on losing their liberty and being deprived of their relatives, while love of country is equally a stranger to their breasts, as social tenderness or domestic affection." "Marriage is celebrated by the natives as unconcernedly as possible; a man thinks as little of taking a wife as of cutting an ear of corn; affection is altogether out of the question." They are, however, very submissive to authority, and seem to entertain great reverence for chiefs, priests, and masters. No greater indignity can be offered an individual, than to throw opprobrium on his parents. On this point of their character I think I have remarked that, contrary to the instincts of nature in other races, they entertain less regard for children than for parents, to whose authority they have been accustomed to submit. Their character is thus summed up by the traveler quoted:—"The few opportunities we have had of studying their characters, induce us to believe that they are a simple, honest, inoffensive, but weak, timid, and cowardly race. They seem to have no social tenderness,—very few of those amiable private virtues which could win our affections,—and none of those public qualities that claim respect or command admiration. The love of country is not strong enough in their bosoms to entice them to defend it against a despicable foe; and of the active energy, noble sentiments, and contempt of danger, which distinguish the North American tribes, and other savages, no traces are to be found among this slothful people. Regardless of the past, as reckless of the future, the present alone influences their actions. In this respect they approach nearer to the nature of the brute creation than perhaps any other people on the face of the globe." Let me ask, if this people do not furnish the very material out of which slaves ought to be made; and whether it be not an improving of their condition to make them the slaves of civilized masters? There is a variety in the character of the tribes. Some are brutally and savagely ferocious and bloody, whom it would be mercy to enslave. From the travellers' account, it seems not unlikely that the negro race is

tending to extermination, being daily encroached on and overrun by the superior Arab race. It may be, that when they shall have been loosed from their native seats, they may be found numerous, and in no unhappy condition, on the continent to which they have been transplanted.

The opinion which connects form and features with character and intellectual power, is one so deeply impressed on the human mind, that perhaps there is scarcely any man who does not almost daily act upon it, and in some measure verify its truth. Yet in spite of this intimation of nature, and though the anatomist and physiologist may tell them that the races differ in every bone and muscle, and in the proportion of brain and nerves, yet there are some who, with a most bigoted and fanatical determination to free themselves from what they have pre-judged to be prejudice, will still maintain that this physiognomy, evidently tending to that of the brute, when compared to that of the Caucasian race, may be enlightened by as much thought, and animated by as lofty sentiments. We who have the best opportunity of judging, are pronounced to be incompetent to do so, and to be blinded by our interests and prejudices—often by those who have no opportunity at all. Are we to be taught to distrust or disbelieve that which we daily observe, and familiarly know, on such authority? Our prejudices are spoken of. But the truth is, that, until very lately, since circumstances have compelled us to think of ourselves, we took our opinion on this subject, as on every other, ready formed, from the country of our origin. And so deeply rooted were they, that we adhered to them, as most men will do to deeply rooted opinions, even against the evidence of our own observations and our own senses. If the inferiority exists, it is attributed to the apathy and degradation produced by slavery. Though of the hundreds of thousands scattered over other countries, where the laws impose no liability upon them, none has given evidence to an approach to even mediocrity of intellectual excellence. This, too, is attributed to the slavery of a portion of their race. They are regarded as a servile caste, and degraded by opinions, and thus every generous effort is repressed. Yet, though this should be the general effect, this very estimation is calculated to produce the contrary effect in particular instances. It is observed by Bacon, with respect to deformed persons, and eunuchs, that though in general there is something of perversity in their character, the disadvantage often leads to extraordinary displays of virtue and excellence. "Whosoever hath anything in his person that doth induce contempt, hath also a perpetual spur in himself, to rescue and deliver himself from scorn." So it would be with them if they were capable of European aspirations;—genius, if they possessed it, would be doubly fired with noble rage to rescue itself from this scorn. Of course I do not mean to say that there may not be found among them some of superior capacity to many white persons; but that great intellectual powers are, perhaps, never found among them, and that in general their capacity is very limited, and their capacity animal and coarse—fitting them peculiarly to discharge the lower and merely mechanical offices of

society. And why should it not be so? We have among domestic animals infinite varieties, distinguished by various degrees of sagacity, courage, strength, swiftness, and other qualities. And it may be observed, that this is no objection to their being derived from a common origin, which we suppose them to have had. Yet these accidental qualities, as they may be termed, however acquired in the first instance, we know that they transmit unimpaired to their posterity for an indefinite succession of generations. It is most important that these varieties should be preserved, and that each should be applied to the purposes for which it is best adapted. No Philo-zoost, I believe, has suggested it as desirable, that these varieties should be melted down into one equal, undistinguished race of curs or road horses. Slavery, as it is said in an eloquent article published in a southern periodical work,* to which I am indebted for other ideas, "has done more to elevate a degraded race in the scale of humanity; to tame the savage; to civilize the barbarous; to soften the ferocious; to enlighten the ignorant; and to spread the blessings of Christianity among the Heathen, than all the missionaries that philanthropy and religion have ever sent forth." Yet, unquestionable as this is, and though human ingenuity and thought may be tasked in vain to devise any other means by which these blessings could have been conferred, yet a sort of sensibility which would be only mawkish and contemptible, if it were not mischievous, affects still to weep over the wrongs of "injured Africa." Can there be a doubt of the immense benefit which has been conferred on the race, by transplanting them from their native, dark, and barbarous regions, to the American continent and islands? There three-fourths of the race are in a state of the most deplorable personal slavery. And those who are not, are in a scarcely less deplorable condition of political slavery, to barbarous chiefs—who value neither life nor any other human right, or enthralled by priests to the most abject and atrocious superstitions. Take the following testimony of one of the most distinguished observers, who has had an opportunity of observing them in both situations.† "The wild savage is the child of passion, unaided by one ray of religion or morality to direct his course, in consequence of which his existence is stained with every crime that can debase human nature to a level with the brute creation. Who can say that the slaves in our colonies are such? Are they not, by comparison with their still savage brethren, enlightened beings? Is not the West Indian negro, therefore, greatly indebted to his master for making him what he is—for having raised him from the state of debasement in which he was born, and placed him in a scale of civilized society? How can he repay him? He is possessed of nothing—the only return in his power is his servitude. The man who has seen the wild African, roaming in his native woods, and the well-fed, happy-looking negro of the West Indies, may, perhaps, be able to judge of their

* Southern Literary Messenger for January, 1835.

† Journal of an officer employed in the expedition under the command of Capt. Owen, on the Western coast of Africa, 1822.

comparative happiness: the former I strongly suspect would be glad to change his state of boasted freedom, starvation and disease, to become the slave of sinners, and the commiseration of saints." It was a useful and beneficent work, approaching the heroic, to tame the wild horse, and subdue him to the use of man; how much more to tame the nobler animal that is capable of reason, and subdue him to usefulness?

We believe that the tendency of Slavery is to elevate the character of the master. No doubt the character—especially of youth—has sometimes received a taint and premature knowledge of vice, from the contact and association with ignorant and servile beings of gross manners and morals. Yet still we believe that the entire tendency is to inspire disgust and aversion towards their peculiar vices. It was not without a knowledge of nature, that the Spartans exhibited the vices of slaves by way of negative example to their children. We flatter ourselves that the view of this degradation, mitigated as it is, has the effect of making probity more strict, the pride of character more high, the sense of honor more strong, than is commonly found where this institution does not exist. Whatever may be the prevailing faults or vices of the masters of slaves, they have not commonly been understood to be those of dishonesty, cowardice, meanness, or falsehood. And so most unquestionably it ought to be. Our institutions would indeed be intolerable in the sight of God and man, if, condemning one portion of society to hopeless ignorance and comparative degradation, they should make no atonement by elevating the other class by higher virtues, and more liberal attainments—if, besides degraded slaves, there should be ignorant, ignoble, and degraded freemen. There is a broad and well marked line, beyond which no slavish vice should be regarded with the least toleration or allowance. One class is cut off from all interest in the State—that abstraction so potent to the feelings of a generous nature. The other must make compensation by increased assiduity and devotion to its honor and welfare. The love of wealth—so laudable when kept within proper limits, so base and mischievous when it exceeds them—so infectious in its example—an infection to which, I fear, we have been too much exposed—should be pursued by no arts in any degree equivocal, or at any risk of injustice to others. So surely as there is a just and wise governor of the universe, who punishes the sins of nations and communities, as well as of individuals, so surely shall we suffer punishment, if we are indifferent to that moral and intellectual cultivation of which the means are furnished to us, and to which we are called and incited by our situation.

I would to heaven I could express, as I feel, the conviction how necessary this cultivation is, not only to our prosperity and consideration, but to our safety and very existence. We, the slave-holding states, are in a hopeless minority in our own confederated republic—to say nothing of the great confederacy of civilized states. It is admitted, I believe, not only by slave-holders, but by others, that we have sent to our common councils more than our due share of talent, high character, and eloquence. Yet in spite of all these, most stren-

uously exerted measures have been sometimes adopted, which we believed to be dangerous and injurious to us, and threatening to be fatal. What would be our situation, if, instead of these, we were only represented by ignorant and groveling men, incapable of raising their views beyond a job or a petty office, and incapable of commanding hearing or consideration? May I be permitted to advert—by no means invidiously—to the late contest carried on by South-Carolina against Federal authority, and so happily terminated by the moderation which prevailed in our public councils? I have often reflected, what one circumstance, more than any other, contributed to the successful issue of a contest, apparently so hopeless, in which one weak and divided state was arrayed against the whole force of the Confederacy—unsustained and uncountenanced, even by those who had a common interest with her. It seemed to me to be, that we had for leaders an unusual number of men of great intellectual power, co-operating cordially and in good faith, and commanding respect and confidence at home and abroad, by elevated and honorable character. It was from these that we—the followers at home—caught hope and confidence in the gloomiest aspect of our affairs. These, by their eloquence and the largeness of their views, at least shook the faith of the dominant majority in the wisdom and justice of their measures—or the practicability of carrying them into successful effect, and by their bearing and well-known character, satisfied them that South-Carolina would do all that she had pledged herself to do. Without these, how different might have been the result! And who shall say what at this day would have been the aspect of the now flourishing fields and cities of South-Carolina? Or rather without these, it is probable the contest would never have been begun; but that without even the animation of a struggle, we should have sunk silently into a hopeless and degrading subjection. While I have memory—in the extremity of age—in sickness—under all the reverses and calamities of life—I shall have one source of pride and consolation—that of having been associated, according to my humbler position, with the noble spirits who stood prepared to devote themselves for Liberty—the Constitution—the Union. May such character and such talent never be wanting to South-Carolina!

I am sure that it is unnecessary to say to an assembly like this, that the conduct of the master to his slave should be distinguished by the utmost humanity. That we should indeed regard them as wards and dependants on our kindness, for whose well being in every way we are deeply responsible. This is no less the dictate of wisdom and just policy, than of right feeling. It is wise with respect to the services to be expected from them. I have never heard of an owner whose conduct in their management was distinguished by undue severity, whose slaves were not in a great degree worthless to him. A cheerful and kind demeanor, with the expression of interest in themselves and their affairs, is, perhaps, calculated to have a better effect on them, than what might be esteemed more substantial favors and indulgences. Throughout nature, attachment is the reward of attachment. It is wise, too, in relation to the civilized world around us, to

avoid giving occasion to the odium which is so industriously excited against ourselves and our institutions. For this reason, public opinion should, if possible, bear even more strongly and indignantly than it does at present, on masters who practise any wanton cruelty on their slaves. The miscreant who is guilty of this, not only violates the law of God and of humanity, but as far as in him lies, by bringing odium upon, endangers the institutions of his country, and the safety of his countrymen. He casts a shade upon the character of every individual of his fellow-citizens, and does every one of them a personal injury. So of him who indulges in any odious excess of intemperate or licentious passion. It is detached instances of this sort, of which the existence is, perhaps, hardly known among ourselves, that, collected with pertinacious and malevolent industry, affords the most formidable weapons to the mischievous zealots, who array them as being characteristic of our general manners and state of society.

I would by no means be understood to intimate, that a vigorous, as well as just government, should not be exercised over slaves. This is part of our duty towards them, no less obligatory than any other duty, and no less necessary towards their well-being than to ours. I believe that at least as much injury has been done and suffering inflicted by weak and injudicious indulgence, as by inordinate severity. He whose business is to labor, should be made to labor, and that with due diligence, and should be vigorously restrained from excess or vice. This is no less necessary to his happiness than to his usefulness. The master who neglects this, not only makes his slaves unprofitable to himself, but discontented and wretched—a nuisance to his neighbors and to society.

I have said that the tendency of our institution is to elevate the female character, as well as that of the other sex, and for similar reasons. In other states of society, there is no well-defined limit to separate virtue and vice. There are degrees of vice, from the most flagrant and odious, to that which scarcely incurs the censure of society. Many individuals occupy an unequivocal position; and as society becomes accustomed to this, there will be a less peremptory requirement of purity in female manners and conduct; and often the whole of the society will be in a tainted and uncertain condition with respect to female virtue. Here, there is that certain and marked line, above which there is no toleration or allowance for any approach to license of manners or conduct, and she who falls below it, will fall far below even the slave. How many will incur this penalty?

And permit me to say, that this elevation of the female character is no less important and essential to us, than the moral and intellectual cultivation of the other sex. It would indeed be intolerable, if, when one class of society is necessarily degraded in this respect, no compensation were made by the superior elevation and purity of the other. Not only essential purity of conduct, but the utmost purity of manners, and, I will add, though it may incur the formidable charge of affectation or prudery,—a greater severity of decorum than is required elsewhere, is necessary among us. Always should be strenuously resisted the attempts which have been sometimes made

to introduce among us the freedom of foreign European, and especially of continental manners. This freedom, the remotest in the world from that which sometimes springs from simplicity of manners, is calculated and commonly intended to confound the outward distinctions of virtue and vice. It is to prepare the way for licentiousness—to produce this effect—that if those who are clothed with the outward color and garb of vice, may be well received by society; those who are actually guilty may hope to be so too. It may be said, that there is often perfect purity where there is very great freedom of manners. And, I have no doubt, this may be true in particular instances, but it is never true of any *society* in which this is the general state of manners. What guards can there be to purity, when every thing that *may possibly* be done innocently, is habitually practised; when there can be no impropriety which is not vice? And what must be the depth of the depravity, when there is a departure from that which they admit as principle? Besides, things which may perhaps be practised innocently where they are familiar, produce a moral dilaceration in the course of their being introduced where they are new. Let us say, we will not have the manners of South-Carolina changed.

I have before said, that free labor is cheaper than the labor of slaves, and so far as it is so, the condition of the free laborer is worse. But I think President Dew has sufficiently shown that this is only true of northern countries. It is matter of familiar remark, that the tendency of warm climates is to relax the human constitution and indispose to labor. The earth yields abundantly—in some regions almost spontaneously—under the influence of the sun, and the means of supporting life are obtained with but slight exertion; and men will use no greater exertion than is necessary to the purpose. This very luxuriance of vegetation, where no other cause concurs, renders the air less salubrious, and even when positive malady does not exist, the health is habitually impaired. Indolence renders the constitution more liable to these effects of the atmosphere, and these again aggravate the indolence. Nothing but the coercion of slavery can overcome the repugnance to labor under these circumstances, and by subduing the soil, improve and render wholesome the climate.

ART. V.—MANUFACTURE OF SUGAR.*

HISTORY—CHRONOLOGICAL AND NATURAL—OF THE SUGAR-CANE, AND OF SUGAR—AGENCIES OF HEAT, LIME, AND IMPURITIES.

IN a practical treatise on the sugar manufacture, such as this is intended to be, any extended history, either chronological or natural, of the sugar-cane, and its crystalline product, would be out of place. On these subjects a few general remarks will suffice.

Of all eastern products, sugar appears to have been the latest known, out of the regions wherein it was produced. The chroniclers of ancient Egypt, Phœnicia, and India, make no mention of it; and it did not find its way into Arabia as a commercial article until the eleventh century: soon after which, some adventurous Venetian travelers achieved the introduction of sugar as a commercial article into their metropolis. In Venice the first refineries were established; and hence the name, long prevalent, of *pains de Venise* as referring to loaves of sugar.

Even as regards the sugar-cane, the testimony of ancient authors is exceedingly devoid of precision. The most ancient writer by whom we find the sugar-cane recorded is Theophrastus, (B. C., 321,) who, in his chapter on honey, states as follows:—*ὅτι αἱ τοῦ μέλιτος γενέσεις τρεῖσιν. ἢ ἀπὸ τῶν ἄνθων καὶ ἐν οἷς ἄλλοις ἴσται ἡ γλυκύτης, ἄλλη δὲ ἐκ τοῦ αἵματος, ὅταν ἀναχυθῇ, ἐγερθὲν ἀπὸ τοῦ ἡλίου συνεψηθῇ πύσῃ, γίνεται δὲ τοῦτο μάλιστα ὑπὸ πρμαρμητῶν, ἄλλη δὲ ἐν τοῖς καλάμοις.*†

"The generation of honey is threefold: the first is from flowers or other things in which there is sweetness; the second from the air, which, when there are dews, is concocted by the heat of the sun, and

* Continued from November number. The following notes were omitted in that number:—

It will be seen, by reference to the formulæ given, that glucose is made up of the elements of (practical) cane sugar, plus the elements of three equivalents of water; hence a rationale is obtained of the facility with which the latter is changed into the former. Indeed, this conversion into glucose, which sugar experiences from slightly disturbing causes, is the first of a long series of destructive readjustments of elements to which sugar is subjected. Any approach to the boiling temperature of a solution of sugar instantly converts a portion of the latter into glucose; a change which is usually expedited by the presence of foreign matters in general, and by none more powerfully than alkalies and alkaline earths. This fact leads to a just appreciation of the great loss incurred by the present mode of colonial sugar manufacture.

I know not why glucose should be termed by some authors uncrystallizable. It crystallizes with great facility in slender needles, diverging from a centre, forming in the aggregate little masses of nodular or granular appearance. It certainly does not form hard crystals, and, in this respect, is very unlike cane-sugar. The term uncrystallizable sugar, as applied to it, is not only improper, but productive of confusion; that term having been applied by Proust, *Ann. de Chim.* lvii. 131, to a sugar supposed to be liquid under all circumstances and uncrystallizable by any means, to be associated with both sugar of cane and glucose, and accounting, as he thought, for the existence of molasses and treacle.

† *De Causis Plant.*, ed. Heinsii, 1613, p. 475.

falls, particularly in harvest time; the third sort is from canes or reeds."

Theophrastus, in another place,* mentions a sort of reed, or cane, growing in marshy localities in Egypt, and possessing sweet roots. The passage in question has been understood by some to refer to the sugar-cane; but there are many objections to the correctness of this assumption. The sugar-cane is not an aquatic plant, neither are its roots so sweet as its stem. Moreover, if it really had existed in Egypt, there were certainly those who would have chronicled the circumstance with more precision than we find in the above vague expression of Theophrastus.

If we are to rely upon the testimony of Strabo, in his history of India, written about the nineteenth year of the Christian era, Nearchus, the admiral of Alexander the Great, about 300 years before Christ, not only saw the sugar-cane in India, but was aware that a substance resembling honey (sugar) could be extracted from it. But, if the statement were true, the sugar-cane would seem to have remained very uncommon, and sugar still more so, seeing that Seneca and Lucan, who lived in the time of Nero, (A. D. 62,) adverted to the sugar-cane and to sugar in language so ambiguous and obscure—that some authorities have even doubted whether another plant and another substance might not have been intended. Seneca, in his 84th Epistle, has the following passage:—

"*Aliunt inveniri apud Indos, mel in harundinarum foliis, quod aut ros illius cœli aut ipsius harundinis humor dulcis, et pignior gignat. In nostris quoque herbis, vim eandam, sed minus manifestam et notabilem, poni quam prosequatur et contrahat animal huic rei genitum.*"

Lucan, treating of the Indians near the Ganges, writes:—

"*Quique bibunt tenera dulces ab arundine succos.*"

After Seneca and Lucan, Pliny is the next author of repute who adverted to the sugar-cane. This was about the year 78, A. D. Subsequently to which period, and until the latter end of the dark ages, such little testimony as can be found relative to the sugar-cane and sugar is far too vague and unsatisfactory to merit attention.

To the crusades we probably are indebted for disseminating in Europe such a knowledge of the sugar-cane, and its crystallized product, as caused the speedy introduction of both into this quarter of the globe. The sturdy warriors of the cross, on their return to the west, began to desire many oriental luxuries for which they had acquired a taste. An oriental commerce was speedily established, and Venice became the great emporium of the riches of the east:—Of these, sugar was one.

Between the twelfth and fifteenth centuries the sugar-cane was cultivated in Sicily, the south of Spain, and indeed in many other Mediterranean regions. In the south of France, also, the culture of this plant was tried, but without success; the climate proving too uncer-

* *De Causis Plant.*, lib. vi. c. 16, ed. Heinsii.

tain, or too cold. In the Canary Isles, however, the cane culture was most productive, as was also the manufacture of sugar. These islands, in fact, continued to supply civilized Europe with the greater portion of her saccharine produce until the discovery of the West India Islands by the Spaniards, in 1492; and the maritime discovery of India by the Portuguese, opened newer and more congenial soils to the production of the tender crop.

Much controversy has existed on the question, whether the sugar-cane were, or were not, indigenous to the new world. At the present epoch it would be impossible to determine this point, so much has the subject been involved by lapse of time and incapacity of the earlier historians. Fortunately the matter, so far as concerns practice, is of no importance whatsoever. Suffice it to know that the West India Islands, almost immediately subsequent to their discovery, began to supply civilized Europe with large quantities of sugar, and the less fertile fields of southern Europe soon fell into desuetude.

During a long series of years, the West India Islands produced sugar for the greater portion of the civilized world, and created large stores of wealth to the proprietors of their soil. At present, unfortunately, this condition of things exists no longer. The culture of the sugar-cane has now become extended over most tropical, and some temperate regions. To oriental nations, sugar—generally in its impure condition—is an article of daily food. The Chinese use it in profusion; so do the natives of Siam,—a country which, perhaps better than any other, is adapted to the successful produce of the sugar-cane. Throughout the whole of India, sugar is not only a common food for man, but immense quantities of the impure varieties of produce, called *Jaggery*,—are given to elephants. The amount of sugar capable of being produced by scientific processes of manufacture, from the canes and the palm-tribe of India, may be so vastly increased, that it would be difficult to assign any limitation. The native processes of sugar extraction in India are so rude, and so destructive, that it may safely be asserted that 75 per cent. of the sugar existing in the juice operated upon is entirely destroyed in obtaining the remainder!

With regard to the natural history of the sugar-cane, very few remarks will suffice.

Botanists divide the vegetable world into phanerogamous or flowering, and cryptogamic or flowerless plants. With the latter we have no concern.

Flowering plants are again divided into *exogenous plants*, or such as acquire increase of structure during growth by the deposition of external layers of tissue; and *endogenous plants*, or those which grow by depositions of tissue within the substance of their stem.

In temperate climes there are no large productions of the vegetable kingdom which belong to the endogenous class, all its representatives being of most humble growth. The grasses, for instance, are endogenous; and some of our larger grasses, as the wheat or barley, may be taken as the type of the endogenous vegetable produce in temperate regions.



It is in vain, however, to examine in the stem of our humble grasses, for palpable indications of the endogenous mode of growth. For this purpose a section of some tropical endogen,—the bamboo, or sugar-cane, for example,—should be made. This section, if carefully examined, will clearly indicate the prominent feature in the structure of an endogenous plant.

It will be seen that there is no appearance of concentric rings, indicative each of a year's growth, but the whole cellular and vascular structure forms one confused mass.



For the purpose of fully appreciating the difference between an exogenous and an endogenous stem, the cane section may be compared with another of oak or hazel.

The difference between the two will be now marked ; here the indications of peripheral depositions of tissue are so clear, each deposition corresponding with one summer, that, by counting the number of existing rings, the age of the exogenous plant may frequently be told. Besides the difference of the mode of growth between endogenous and exogenous grasses, a difference on which are founded the distinctive terms of botanical arrangement, there exist others no less invariable, and well marked. All exogenous plants are provided with reticulated leaves, whilst the leaves of all endogenous plants are merely traversed by straight veins ; this distinction will be well appreciated on making a comparison between an oak leaf and a leaf of barley or wheat.

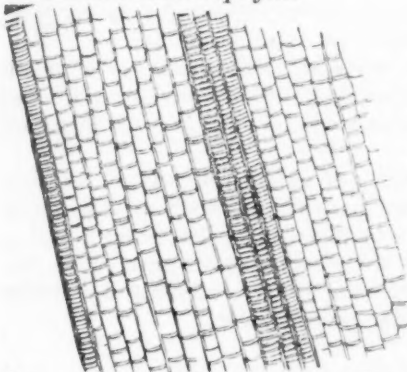
Again, all exogenous plants possess a well-defined bark, wood, and pith ; whilst in endogenous plants no such defined arrangement exists ;—one part merging into the other by insensible gradations. Other distinctions between endogenous and exogenous plants there are, but they belong exclusively to the province of the botanist. If the stem of any of our larger grasses be examined, it will be found incrustated with a hard brilliant coating. This is no less than silica or flint, as may easily be demonstrated by various means. If, for example, a straw be dexterously acted upon by the flame of a blow-pipe,—the silica fusing with the potash naturally existing in all land vegetables—there will result a beautifully transparent bead of glass. On a larger scale this production of glass from the same source is occasionally found amongst the debris of burnt hay or corn stacks. I have seen a lump of glass produced in this way, and weighing several pounds.

The sugar-cane is—botanically considered—a gigantic grass ; and

the siliceous covering so sparingly developed in grasses of the temperate zone, here acquires so palpable a thickness, that small portions of such can easily be chipped off, either from the sugar-cane or the bamboo.

A horizontal, or transverse section, of the stem of the sugar-cane, if examined under the microscope, is seen to consist of a series of hexagonal cells in close juxtaposition. They are formed of a delicate tissue, which incloses them on all sides, in such a manner that each cell is altogether separated from the others to which it is contiguous. This structure is called the cellular structure, and is intermixed with another structure called the vascular, by which the nourishment for the plant's support is absorbed and circulated. (See cut, 628.)

Although it has been said that endogenous plants possess no *defined* bark, and the sugar-cane is no exception to the rule, yet this plant has a kind of pellicle, or rind; not separable, it is true, from the trunk, but indicated by its greenish color, which depends on a portion of the general coloring matter of leaves, to which chemists apply the denomination *chlorophylle*.



The arrangement of vessels and cells already described, as observed in a transverse section of the cane, will be still more fully comprehended by reference to a longitudinal section, a diagram of which is annexed. By reference to this diagram, which represents a longitudinal section of the cane at the point where a knot is formed, it will be seen that, in addition to the cellular structure already described, there is another

structure—the vascular. The use of the latter is to minister to the circulation of the plant, hence the vessels contain the crude sap of the cane, which may be assumed to resemble very nearly the sap of plants in general, and which is, therefore, a very complex fluid: a circumstance very necessary to be borne in mind, as will hereafter be recognized.

With respect to the hexagonal cells,—microscopic experiments have demonstrated that they contain a fluid which is little else than pure sugar dissolved in pure water. The problems to be solved, therefore, are either to extract the matter of the cells alone, or to express all succulent matter from the canes, and afterwards to effect a separation between the sugar and its accompanying impurities. The first indication seems most philosophical, and it is one which a chemist in his laboratory would prefer to follow out. Taking advantage of the property which albuminous matters possess of coagulating on the application of heat, and remembering that such matters constitute the larger portion of the crude sap of the sugar-cane, the laboratory chemist would proceed by slicing his cane, drying the slices in a proper stove, and washing out the contained sugar by means of alcohol. Even without alcohol he could succeed in obtaining a good

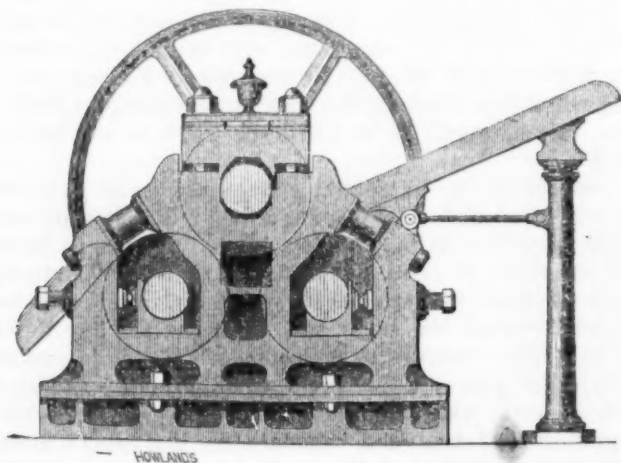
result, hot water being a menstruum scarcely less eligible for effecting the solution; for albumen, when coagulated by heat, is no longer soluble in water.

Thus, at a first glance, the problem appears solved, even as regards the large scale; but a slight analysis of facts soon demonstrates the contrary. The first difficulty is one that would scarcely be imagined *a priori*. It is difficult, if not impossible, to use any slicing machine that shall not very speedily become blunted by the hard siliceous covering of the canes. Once blunted, the first object of the operation is lost; instead of a clean cut we have a bruise, and the saccharine cellular juice mingles with the sap: the grand objection to the usual squeezing of the mill obtains, without any of the mill's advantages. Then, how are sliced canes to be stove-dried in large quantities? Where is the necessary amount of hot water to come from? Where the fuel necessary to evaporate so dilute a solution as must result if the sugar be thoroughly washed out?

All these are practical questions, which the planter would do well to answer to himself, before making arrangements for the carrying out of this very philosophical, but impracticable scheme.

Discarding the first of the two problems as incapable of a practicable solution, the second presents itself to our consideration; but as a preliminary, a few words concerning the mill and its operation will be desirable.

The sugar-mill consists of a series of cylindrical rollers, usually three, between which the canes are pressed; the result of this operation is obviously to extrude not only the sugar-containing liquid in the hexagonal cells—but also the complex vegetable juice of the vascular tissue, and also a portion of wax, which is secreted by certain little glands on the periphery of the cane nodules.



Hence, cane juice, or the fluid of expression, is a fluid of very complex nature; being made up of a great number of mineral salts, and

of so many vegetable principles, that no perfectly trustworthy analysis of it is as yet recorded.

In a treatise which aims solely at being a guide to practice, it would savour of pedantry to expatiate on analyses which do not further the object to be kept in view. Without, therefore, entering minutely into the chemistry of cane juice, it will be sufficient for all practical purposes to consider, first, that it is made up of sugar, water, and impurities; and, secondly, that the prevailing or typical impurity is albumen.

Such is the fluid on which practical necessities oblige us to operate; and now the second problem is fairly before us for solution;—namely, to extract all succulent matter from the canes, and to effect a separation between the sugar and its accompanying impurities.

This separation must be effected beyond a certain extent, or the sugar existing in the cane juice obstinately refuses to crystallize on being evaporated; a circumstance not peculiar to sugar alone, but of almost universal occurrence in all parallel cases.

Thus, the juice of limes and lemons contains a large amount of citric acid; a body which, though easily crystallizable out of an aqueous solution, obstinately refuses to crystallize until a great part of its associated vegetable impurities is removed. The method of this removal I need not describe, as it does not in the least resemble any of the processes which will effect the purification of cane juice. The object to be gained, however, in either case, is identical.

Considering that the leading impurity in cane juice is albumen, and considering that albumen coagulates by heat—it might have been theoretically inferred, that a mere heating of the cane juice to a temperature sufficiently elevated to coagulate the albumen, would have left the sugar in a solution of sufficient purity to admit of crystallization: experiments, however, have demonstrated that such is not the fact, and have proved the necessity of adding to the juice some material endowed with a chemical potency of effecting a greater separation of impurities than is possible by heat alone. The usual agent employed for this purpose is lime,—the mode of operation of which will be fully detailed hereafter.

We now arrive at a most important division of our subject; we have to examine closely into the changes which sugar is made to undergo by the combined agency of heat, impurities, and lime.

This will be best accomplished by leaving for a period the consideration of cane juice, and by substituting for it a solution of pure sugar and pure water. This pure solution will be the starting point of all remarks on the more complex case, and will enable the following important agencies to be contemplated in detail; whereas in the actual colonial operation on cane juice they operate simultaneously. We shall have to study—

1. The changes effected on solutions of sugar in water by heat alone.
2. The changes effected on the same by the united agencies of heat and lime.

3. The changes effected on solutions of sugar, water, and impurities, by heat and lime, (the colonial operation.)

This important investigation will be approached with the greatest advantage by an examination of the phenomena attendant on the crystallization, from a menstruum of some body which is not capable of decomposition by the agency of heat.

For this purpose no substance is better than common nitre. If a portion of this substance, dissolved in water, were given to an operator with the object of evaporating away all the water of solution, and leaving the whole of the salt unchanged, this could easily be effected. The operator would simply have to apply heat to the solution, and the desired result would speedily be achieved. Whatever the amount of heat applied, no injury would occur to the salt, which would be found gradually incrusting the evaporating dish; and, by carrying on the process of evaporation to a sufficient extent, the whole of the nitre would be left dry. Under the circumstances, however, of rapid evaporation detailed, the salt would assume an imperfectly crystalline state; indeed, the chances are that no crystals would be visible.

Were the object to obtain the nitre in perfect crystals, the evaporation should be modified thus:—The evaporation should be stopped short at a certain point, and the hot liquid allowed to cool—the result of which cooling would be the formation of well-defined crystals. A portion of the liquor of solution, however, would still remain uncrystallized, until drawn off and subjected to a process of re-evaporation; when another crop of crystals would be formed, and another quantity of uncrystallized but crystallizable liquor would remain.

Upon the latter, the processes of reboiling and crystallizing might be repeated, until the total expenditure of the liquor of drainage; and with the result of obtaining literally the whole of the nitre employed—and crystallized, too; up to the period when the diminished amount of liquid to be evaporated and drained, furnished so small a mass, that the gradual cooling and perfect drainage, so essential to the production of good crystals, were conditions no longer under control.

The reader will have anticipated my coming remark, that this liquor of drainage stands in the same *mechanical* relation to nitre, that molasses does to sugar. Beyond this mechanical relation, however, the analogy ends—as will be presently made known. If, instead of nitre and water, a solution of pure sugar in pure water be taken, and treated according to the scheme just indicated, the results are as follow:

A portion of sugar crystallizes; but, instead of being white, as it was when dissolved, the crystals will have assumed a yellow tint, and the syrup of drainage will be more or less coloured. If this syrup be collected and evaporated, there will result another produce of crystalline sugar still more yellow than the first, and the liquor of drainage from this second product will also have acquired a much darker colour than its parallel in the first operation. Proceeding in

this way, there is at length a period arrived at, when the liquor of drainage becomes a dark-coloured viscid mass, incapable of crystallizing at all.

Thus, according to testimony of this experiment, it is impossible to extract, by the evaporative process (at least when heat is applied), the total amount of pure sugar dissolved in a quantity of pure water; a portion of such sugar being destroyed, and converted into a dark product.

If this operation had been conducted on a solution of sugar—not in pure water, but admixed with impurities of various kinds, such as coexist with the sugar in cane-juice; had the case been still more involved by the addition of a foreign agent, such as lime,—the experimentalist might have imagined the destruction of sugar just indicated to be exclusively due to the agency of the collateral bodies: an explanation which is obviously inapplicable to the conditions just detailed. Indeed, the experiment of Professor Soubeiran, heretofore mentioned, sets all doubt at rest on this point.

The agency of heat alone being proved sufficient to effect a certain destruction upon a solution of pure sugar in water, it is an important point to determine the lowest amount of heat which is thus injurious; and whether a process of evaporation can be devised, which shall not overstep that limit of temperature where the injury first commences.

In the laboratory, a chemist easily solves the problem; indeed, it involves a process which he very constantly applies to effect the evaporation or desiccation of many bodies,—so delicate in their nature, that a slight artificial temperature would subject them to decomposition.

The chemist would proceed by taking advantage of the fact, that to produce evaporation the removal of atmospheric pressure is equivalent in effect to the application of artificial heat. He, therefore, would put under the receiver of an air-pump a shallow saucer, containing oil of vitriol; over which he would place, on a convenient support, a dish containing the sugar solution. A vacuum being now produced, the water of the solution would commence to be evolved as vapor; and this vapor would be immediately absorbed by the oil of vitriol. Thus, without any further working of the pump, a tendency to a vacuum would be kept up, until the sugar would have become dry, crystallized, and chemically unchanged.

I need not say that this process of evaporation is totally unadapted to any commercial case of sugar manufacture. A compromise, however, between two conditions, has been effected by the vacuum pan, (an instrument hereafter to be described,) which enables sugar solutions to be boiled in commercial quantities, under the joint circumstances of a partial vacuum, and a great diminution of temperature. The lowest practical temperature at which I have ever seen a vacuum pan worked is 135° ; a temperature which I would, therefore, consider the practical minimum, but which is sufficient to effect a certain amount of destruction on sugar solutions.

Having recognized the fact, that the lowest practicable degree of heat for effecting the evaporation of sugar solutions, is sufficient in

itself to produce a certain amount of destruction—it now remains to be shown how much this amount of destruction is increased, by the concomitant agency of lime, and impurities.

Proceeding in the demonstration systematically, I will assume a portion of white sugar to be dissolved in water, admixed with lime, and then boiled. If this operation be performed, the eye alone will recognize the fact, that a destructive process supervenes to a far greater extent than when a mere solution of sugar and water, without the addition of lime, was employed. Not only does the fluid become dark with increased rapidity, but it exhales a newly developed smell, indicative of some process of decomposition effected upon the sugar. If, moreover, the crystallization of the limed liquid be attempted, a further proof of destruction will be manifest in the increased amount of non-crystallizable material, which leaks away from the crystallized mass.

These are but rough indications of the injury to which sugar is exposed when solutions containing it are heated in combination with lime—indications which are so visible to all who have seen the operation performed, that there exists not a sugar producer, so far as my experience goes, who does not fully recognize the powerfully destructive agency of this alkaline earth. Nay, in the absence of other testimony, the multitude of contrivances which have, from time to time, been introduced to public notice, with the express intention of either diminishing indefinitely the amount of lime to be used, or of reducing the quantity to some definite standard—would be ample evidence in support of the position, that lime is commonly recognized to be a most destructive agent on sugar.

The minute chemistry of the agency of lime on sugar solutions, would be somewhat out of place here. So much of this agency as is necessary for the guidance of a practical sugar manufacturer has already been given in other parts of this treatise.

Having successively examined the agency of heat on a pure solution of sugar and water,—and on the same with admixture of lime; we have next to investigate the complex changes which occur during the treatment by heat of sugar solutions mixed with vegetable impurities and lime.

That the cases selected may be consecutively demonstrative, I will suppose the experimentalist to contaminate a portion of pure sugar and water with some raw vegetable juice—that of raw parsnips, for example. Thus contaminated, the solution will be amenable to a new series of chemical decompositions of greatly increased complexity; of which the following are the most remarkable, and of greatest practical value, to be well understood, and remembered.

The first great influence exerted on sugar solutions by the presence of raw vegetable juices generally, is that of causing various fermentations. Thus, although solutions of pure sugar in water may be allowed to remain exposed to temperatures most conducive to fermentation for days, and even weeks, without any perceptible effect of this kind, yet the addition of very small quantities of these raw vegetable juices causes them, under the same circumstances, readily

to assume fermentations accompanied by the destruction of sugar and the formation of lactic acid, mannite, glucose, alcohol, acetic acid, and many other derivative bodies.

This factitious juice, made up of sugar, water, and the juice of raw parsnips, presents a very near analogy to the juice of beetroots, from which sugar may be extracted—and offers no very remote resemblance to sugar-cane juice itself; many chemical properties of which liquids may be correctly studied on this factitious compound.

If a portion of this compound saccharine juice be evaporated with all care, and with the view of effecting its crystallization,—the labor will be in vain. Until some of the impurities, at least, are separated, no crystallization will ensue.

If this factitious juice be a true practical representation of cane and other sugar-containing juices, it is quite evident, that the experiments cited have demonstrated the positive necessity of separating a considerable portion, at least, of the accompanying vegetable impurities, as a preliminary to obtaining the sugar in a crystalline form. Hence the following proposition is at once brought before us:—*Given, a mixed solution, of sugar, water, and impurities—how practically to separate all but the sugar, with the least expense, and the least delay.*

This is the grand problem, upon the perfect solution of which every advance towards perfection in the manufacture of sugar hinges.

As the usual agent employed in sugar-growing countries, for effecting this separation of impurities from raw sugar-containing juices—is lime, employed in some manner or other, it will be proper, in this place, to examine its agency on the factitious juice.

If, then, a portion of the juice be admixed with a portion of lime, (rubbed with water into the condition of cream, for convenience of employment,) and then heated, the following changes will be seen to occur.

When the heat has been pushed to the extent of 180° Fahr., a black crust of impurities will be seen to have collected on the surface of the juice, from which it may be skimmed off,—leaving the subnatant liquid comparatively clear and bright, but much deeper colored than it was originally.

If this fluid, thus freed from the scum thrown up by the agency of lime, be now evaporated down to the proper degree, crystallization will be effected;—and substituting cane-juice for the factitious juice, here assumed to have been employed, the reader will have had brought before his notice the exact conditions of sugar boiling in the colonies.

Although in the preceding experiment the scum might have been removed from the juice treated with lime, so soon as the temperature arrived at 180° Fahr.; although the subnatant liquor might then appear to the eye perfectly clear and bright—yet it is not difficult to prove, by many different kinds of evidence, that this brightness or clearness of the liquor is a most fallacious sign of its purity. The first evidence to this effect, is the very strong one, that fresh coats of scum continually arise as the evaporative process goes on—a result which never happens in solutions of pure sugar and water. A second testimony to the same effect is afforded by the action of certain che-

mical tests, which are known to be endowed with the power of throwing down vegetable impurities. The acetates of lead are agents of this kind.

Thus far, the agency of lime has been demonstrated to be defective; but the worst has yet to be told. Even conceding, for the sake of argument, that there is a certain theoretical relation between a definite amount of vegetable impurities and the quantity of lime necessary for effecting its removal (which is not the case), still this relation would vary for almost every sample of juice; and no amount of care, or talent, or appliances, could accomplish this exact apportionment. The manufacturer would, therefore, even under this assumption—the one most favorable to the employment of lime—be continually obliged either to choose between adding too little of that agent, or too much; actual neutralization by apportionment being amongst the most difficult of laboratory operations, and one totally impracticable on a large scale. A few remarks will be necessary here, relative to the assertion, that no theoretical relation *does* exist between the quantity of lime and the quantity of impurities to be separated. It will be intelligible when we consider that the removal of impurities effected by lime is not one of *combination*, but one of *determination*, and hence is influenced by such varying conditions of heat, density, solution, and other circumstances, that to calculate the chemical resultant of so many conflicting forces would be an impossibility. On this point the following may be taken as a practical exemplification. If a pint of cane-juice, under the proper conditions of temperature, be treated with ten grains of lime, a scum will form; which, if separated by filtration, or otherwise, a clear, though high-colored, fluid will result. If this fluid be now examined for lime, considerable quantities of it will be discovered by the proper chemical tests for that alkaline earth; a fact which might lead to the inference, if not checked by other observations, that more lime had been employed than was absolutely necessary for the separation of the impurities present.

Nevertheless, it can be proved most unequivocally, by chemical tests (the acetates of lead, for example,) that not merely a large amount, but the *greatest amount*, of the original impurities still remains. This testing operation demonstrates, that there is not even a theoretical relation between the amount of impurities present, and the amount of lime most proper to effect their separation; because the agency of lime is indirect, not direct—because it does not effect any separation by *combination*, but by *determination*. To place this matter in the strongest point of view, the following case may be cited:—

If sixty-three parts by weight, exactly, of ordinary crystallized oxalic acid,* were to be dissolved in water, and if it were required

* It is necessary to be precise in this expression. There are two substances known as crystallized oxalic acid, both of which are really combinations of oxalic acid with water. The ordinary crystallized oxalic acid is composed of one equivalent of real or dry oxalic acid, and three of water; and the other of

only to separate the oxalic acid absolutely by means of lime, without employing more than the amount required of the latter agent, the problem would be solved with the greatest ease. Every tyro in chemistry knows, that for effecting this separation, twenty-eight parts by weight, *exactly*, of lime, would be the proper quantity; which being added, a solid and insoluble combination of the lime and the oxalic acid would result—would deposit; and the remaining liquid would be water absolutely pure.

If the impurities which contaminate cane-juice, and other natural sugar-containing juices, assumed the tendency of forming a direct, invariable, and determinate power of combination with lime, an exact theoretical relation between the relative quantities of the two, necessary for effecting combination and separation, would exist; but as such theoretical relation is totally opposed to the actual conditions, the arguments founded upon the contrary assumption fall to the ground.

If we cursorily pass in review the experiments detailed in this chapter, with the object of eliciting from them their legitimate deduction, we shall be led to the following important facts:—

That impure or crude sugar-containing juices refuse to crystallize, until a large portion of their accompanying impurities has been removed; that, moreover, such juices are very prone to undergo fermentation; hence the removal of such impurities is of the first importance. That lime will effect the removal of such an amount of the impurities as will admit of subsequent crystallization. That it is impossible to add lime in such a manner that some of this agent shall not remain. Hence, that even under the most favorable supposition—namely, that the use of lime has removed all impurities—(which is not the case)—still, the resulting liquor will not be sugar and water, but a mixture of sugar, water and lime.

But it has been demonstrated, that if a solution of sugar, water, and lime be boiled together, the sugar is rapidly destroyed. Hence, it follows, that lime, when used as a purifying or defecating agent for crude sugar-containing juices, is, under any circumstances, a most destructive agent, and that some better agent is a desideratum.

It will have been clearly indicated, moreover, that any rational attempt to limit the injurious agency of lime, will be in the direction, not of primarily apportioning the amount of lime to be used, but of separating, by some agent not injurious to sugar, all excess of the agent which may remain in the cleared or defecated liquor. This, so far as I am aware, is an impossibility.* Moreover, if there be ques-

one equivalent of real or dry acid, and one of water. Dry oxalic acid has never been obtained, although it may be caused to unite with certain bases, and thus be demonstrated to exist. In the experiment above cited, it exchanges its water for lime, with which it unites. The expression, dry crystallized oxalic acid, is absurd.

* That is to say, in practice—on the small scale, and by the exercise of great care, lime may be separated with such exactitude, even by oxalic acid, that the sugar shall not be perceptibly injured. But a still better plan consists in the use of sulphurous acid, under circumstances which, having noticed in May, 1848, I caused to be printed in the summer of that year, and have subsequently taught in the laboratory.

tion of separating any excess of defecating agent, the practical chemist will turn his attention to an agent of far greater efficacy, as a defecator, than lime—an agent which long since would have been employed in the sugar manufacture, if any means for separating it had been known.

In detailing the prominent effect of the agency of lime on sugar solutions, both pure and mixed, I have purposely avoided all chemical remarks as to the rationale of this agency, from the conviction that they would little avail the practical sugar producer. In point of fact, the agencies thus brought into play are so multifarious, so complex, or so ill understood, that even a full recapitulation of all that is known on the subject would be of but little use.

The general rationale of the agency of lime on pure solutions of sugar and water may be grasped by remembering—that sugar is a body of acid reaction; hence, that it readily combines with bases; that under the agency of lime and heat it readily yields glucose, which substance is also possessed of an acid quality. Finally, that glucose, under the prolonged action of lime and heat, rapidly changes into glucic, melasinic, sacchulmic, and sacchumic acids, besides many other imperfectly known bodies.

The action of lime and heat on the impurities existing in sugar-containing juices, is referable to the property which albumen and several other organic bodies assume, of becoming to some degree insoluble, when they are exposed to incipient destruction.

Thus, all that can be stated on this point amounts to the simple expression of the fact, that lime determines the separation of a certain amount of the impurities existing in crude sugar solutions.

One important remark, however, relating to the use of lime as a defecatory agent, cannot be too strongly impressed upon the sugar grower. It is this—that whatever the rationale of the employment of lime, in the sugar-boiling operation on raw juices may be, it is certainly not that, as is frequently stated, of neutralizing acidity. The term acidity is here to be understood in a general sense, as relating to such acids as the acetic and lactic. In strict chemical language, the term acid is extended even to sugar itself. Were there no greater necessity for using lime than this, it is clear that chalk would be a most efficient substitute; for whilst it would be equally potent with lime in neutralizing acidity, it could be employed in any quantity without fear of injury. The agency of lime on solutions of Muscovado, or other impure sugar and water, has purposely been omitted here, inasmuch as it will be discussed with the greatest propriety under the head of refining. It is well to remark, however, that there is no similarity between the kind of impurities existing in raw juices and those in colored sugars. The former chiefly consist of albuminous bodies natural to the juices; the latter of glucose, glucic, melasinic, sacchulmic and sacchumic acids, generated by the action of heat and lime on sugar.

PROGRESS OF AMERICAN CITIES.

1.—CINCINNATI.

WE are indebted to that valuable sheet, the Cincinnati Prices Current, for the following statistics of that rapidly growing emporium of the North-West.

BUSINESS, 1849-50.

The prospects were generally favorable for a season of prosperity at the commencement of the commercial year, which has just closed, and but for the failure of the wheat crop, in the central Western States in 1849, and the re-appearance of cholera during the present summer, the expectations then entertained would have been more than realized. But notwithstanding the serious drawbacks alluded to, business may be said to have been good throughout the year, and although trade could not at any time be said to be very active, yet the state of the markets was generally healthy, and the tendency of prices was such, that importers and jobbers, as well as produce merchants generally, realized fair profits on their general sales. There was but a comparatively small speculative business transacted in any of our leading staples, and most of the operations of the year having been characterized by prudence, the mercantile community have well sustained their credit; and while in the Eastern cities some heavy failures have taken place, we have had scarcely a stoppage to announce, and we may safely say that the new year is entered upon with unusually flattering prospects.

GRAIN TRADE.

In referring to the failure of the wheat crop, in the central Western States, in our last annual remarks, we stated that the crop would not much exceed one-third of an average yield. On referring to the receipts of flour at the several Western outlets, during the past year, we find that we were correct in our estimate, for although the receipts at this port and New-Orleans, show a deficiency of only about one-half, yet it must be recollected that the comparatively high prices current in the Western and Southern markets, attracted supplies from the Northern Lakes, which in ordinary years, found their outlet at New-York, and also, that there was a considerable stock of surplus wheat in the West, at the in-coming of the crops of 1849, while this season, the country was almost entirely bare when the new wheat was brought into market. In remarking on the prospect for prices, we stated that the full supplies in the Eastern markets, and the great falling off in the foreign demand, which we predicted would be experienced, would keep the market in check, and prevent prices from reaching the high point to which many, at the commencement of the year supposed, they would be carried. In the Western markets, however, flour commanded a higher price than we had supposed would be realized, and we find that the average price of the past year is \$4 75, while that for 1848-9, was only \$3 78. In the Eastern markets the range of prices was only about fifty cents per bbl. higher than last year, and frequently the rates current here were as high as those obtainable in New-York. In our remarks, relative to a probable falling off in the European demand for breadstuffs, we were entirely correct, as will be seen by the following figures, which show the amount exported from the United States to foreign ports, from Sept. 1, 1849, to about the 10th of August ultimo:

	Flour, bbls.	Meal, bbls.	Corn, bush.	Wheat, bush.
1849-50.....	392,742	6,086	4,813,373	432,939
1848-49.....	1,056,431	81,344	12,536,758	1,077,585
Decrease.....	663,689	75,258	7,723,385	634,546

It is seen that the United States contributed little to supply Great Britain with breadstuffs during the past year, and the facts show that we cannot expect any considerable demand from that country, while her own crops, and those of

Continental Europe, are even moderately good, unless at prices that would not remunerate our farmers for the labor necessary to the production of the grain.

On the first of September, 1849, it was generally supposed that the yield of corn in the West would be unusually heavy, and we so stated in our report, and remarked that it would make up, to a considerable extent, for the deficiency in the yield of wheat. The crop, however, instead of being heavy, did not prove to be even an average yield, and, as a consequence, prices ruled high throughout the year, and in order to supply the demand, the stocks in the country have been greatly reduced, and there will be but a small surplus to go over to the new season.

It is proper that we should in this connection, make a few remarks relative to the reversals in trade, caused by the failure of the crops in the Western States, as the experience of the past may prove valuable in future seasons. The high prices current in the West and South, diverted the trade in flour from its ordinary channels. This market was supplied, to some extent, from Cleveland, Buffalo and Pittsburgh, and there was an entire suspension of shipments of flour Eastward, from points North of this place, on the Miami and Erie canal. To St. Louis large quantities of flour were sent from the Northern lakes through the Illinois canal, and thence to New-Orleans. This diversion of supplies, rendered practicable by the opening of various channels of communication, kept prices in check, and proved of great advantage to consumers situated in the sections of country that suffered most from deficient supplies. Towards the close of the season heavy shipments were made from the Eastern seaboard to New-Orleans, but these, without an exception, proved unprofitable, and several lots were sent back to New-York and Boston markets. The experience of the past season, in this respect, shows how easy a matter it is, with our various channels of intercommunication, to distribute supplies, and that while supplies in one section are ample, the other cannot suffer materially from exorbitantly high prices.

We will close these general remarks with a few observations relative to the prospects for the year we have entered upon. The whole country has been blest this season with a most abundant wheat crop. The aggregate yield, it is believed, is larger than ever before, and it is generally supposed that the stock now in the country, notwithstanding the small surplus of old wheat, is larger than in any season since 1845. This leads many to look for very low prices during the ensuing year, but it is not probable that prices will reach an unusually low point until towards the close of the season, and not then unless the prospects for the next harvest should be again favorable. There are several reasons for this conclusion: the first, and chief of which is, that farmers will not sell at low prices, unless necessitated to, and the present condition of most of them is such, that they can afford to hold their grain for some time. Another reason is, that when prices are low, the consumption is generally heavy. The advices from Europe state that there is a fair prospect for good crops of grain in Great Britain, but in France, unfavorable weather is interfering seriously with harvest operations. It is probable, however, that Europe will have within herself, a fair supply of breadstuffs, but, notwithstanding, we think there will be an increased demand for our produce, as prices here will certainly be moderately low, and the potato crop in England and Ireland, will prove a partial, if not an almost total failure. There will, therefore, as we may reasonably expect, be an increased demand abroad, and during the continuance of low prices, there will be a disposition on the part of exporters, to operate.

HOGS.

Relative to the market for hogs, we remarked that the information we then had, warranted the belief that there would be an increase in all the Western States. The accuracy of our statement was generally disputed, until the season for packing had closed, and the receipts of the products at the outlets, showed that we were correct. At some of the principal packing points, there was a falling off, but there was an increased business done in the interior, as shown by subsequent receipts therefrom. In regard to prices, we stated, that notwithstanding the low rates talked of during the summer, the market would probably open between \$2 50 and \$3; and on referring to the reports, we find

that the opening price was \$2 61, and the average price for the first month of the season, was \$2 65.

Our advices, relative to the number of hogs that will probably be ready for the block the approaching season, are not sufficiently general to enable us to express an opinion as to the supply in the whole West, but from Ohio and Kentucky, and portions of Indiana, we have information to warrant us in saying, that in these states there will be a deficiency. From the assessors' returns of the hogs assessed in thirty counties in this state, we learn that there is a falling off in every county heard from, and upon these returns we base an estimate that there will be a deficiency in the whole state, of two hundred and fifty thousand head. Should prices rule high, this deficiency may be reduced by fattening hogs that were not assessed, being under six months old in April; but unless these can be made ready for the block, by feeding upon *new* corn, it is not probable that it will be done to any extent, as the stock of old corn is everywhere very light, and where convenient to a market, it will command more money in the ear than would be likely to be realized from it by feeding it to hogs. From Kentucky, or Indiana, we have no *official* information relative to the number of hogs, but it is known that in both those states there is a scarcity of corn, and as it is known that without corn there cannot be hogs, it is reasonable to infer, that the supply of the latter will be lessened to some extent by the deficiency in the crop of the former. In other Western states there has been for several years a steady, and during the last two years, a rapid increase in the hog business, and Missouri, Iowa and Illinois will soon occupy the most prominent places among the hog raising states of the Union. The railroads and canals of Ohio and Indiana have brought the lands, in almost every portion of the states, practically so near to markets, that farmers generally can do as well, and sometimes better, by selling their corn, than by feeding hogs on an extensive scale. This will continue to drive the business West, to states more remote from market. From the Western states alluded to, we have no reliable information; but as a fact, not favorable to any increase in number, we may state that in those states, or in the portions bordering on the rivers, corn is comparatively scarce, and for fattening hogs, the farmers will, to a great extent, be dependent on the new crop. We will state, as a most unusual occurrence, that corn was shipped during the last season, from St. Louis, to points *up* the Missouri river, and shipments were also made from this city to St. Louis. The business in either case was not very extensive, but we mention the facts to show that there was a scarcity in the corn-growing sections alluded to. Relative to the probable price of hogs for the next season, we have made some inquiry, and the opinion seems to be, that the market will open at or about three dollars per one hundred lbs. net, which will be about 40c. above the opening price of last season, and 25c. below the opening price of 1848-9. There is certainly nothing at present that should induce dealers to pay anything over the price named, and nothing but the certainty of a very material deficiency that would justify that price. The present condition of the market cannot be said to be as healthy as at the commencement of the last year. The stocks in the Eastern markets are heavier, the foreign demand for every article is less, and in this market bacon sides are 1 cent, shoulders, $\frac{1}{2}$ cent, hams, $1\frac{1}{2}$ cents lower than at this date last year. Lard is the same, and mess pork is about 25c. better. There is no prospect of any material increase in foreign demand. These facts together, will cause packers to move cautiously. We here republish a statement given in our last annual report, showing the relative value of the several products to that of the hog, remarking as we did then, that it was furnished by a gentleman who made it up from practical observations:

\$3 for hogs would be equal to 3½c. for green sides; \$4 44 for bacon do; 2½c. for green hams; \$5 67 for bacon do; 4½c. for green shoulders; \$3 03 for bacon do; 5½c. for lard; \$9 for mess pork; \$6 50 for rump do; \$3 50 for hogs, would be equal to 4c. for green sides; \$5 03 for bacon do; 5c. for do. hams; \$6 26 for do hams; 3c. for do shoulders; \$3 91 for do shoulders; 6½c. for lard; \$10 for mess pork; \$6 50 for rump do.

We have already briefly stated that the prospects are now highly favorable for a prosperous season. The country is blest with an abundance of the products

of the earth. Excepting hay and oats, and exclusive of wheat, there will be an average yield, and of the latter, it is one-third more than an average. Money taken from the country by California emigrants, is now returning, every steamer bringing large quantities of the products of the mines. The effect of this returning capital is now felt in the East, and will soon be felt throughout the whole Western country. The demand for groceries and dry goods, to supply the merchants of the interior, must be heavy, as there will certainly be a great increase in the consumption, and the stocks everywhere are light. leaving, so to speak, a clear field for the operations of the new year.

The experience of previous years, in the packing business, caused operators to move very cautiously at the commencement of last season. During the summer of 1849, the views of packers were very low, as remarked in our last annual report, but a gradually improving market for provisions, inspired more confidence towards the commencement of the season, but still, as already stated, packers were very cautious in their operations, and more attention was given probably to matters relating to future prospects, than in any previous year. Holders of hogs had been greatly discouraged by the unfavourable statements made during the summer and fall, and this had the effect to divert a portion of the stock from this market, that would otherwise have been driven hither, and this caused an increased business at some of the old packing points in the interior, and business was also done at various new points, so that the deficiency here, and at other places, was made up by an increase at interior points.

The packing business commenced on the 31st of October, but the weather not being favorable, operations progressed slowly until about the middle of November, from which time they went forward pretty briskly, until the close of the season, with occasional interruptions, by unfavorable changes in the weather. The first sales to packers, noticed, were about 500 head, on the 31st of October, at \$2 50, \$2 60 and \$2 75, the market leaning towards the latter rate. From this date up to the 1st of December, the average weekly price was \$2 66 to \$2 68, but from this point prices steadily advanced until, at the close, they reached \$3 40. The immediate cause of this advance was a reaction in the provision market, together with a falling off in the arrivals of hogs. As soon as it was ascertained that there would be a deficiency at this point, buyers operated with more spirit, and the season closed with a decidedly firm feeling. The great bulk of the business, however, was done at the lower rates, as will be seen by the weekly average prices, from the commencement to the close of the season, which we here give:

Week ending.	Average price.	Week ending.	Average price.
Nov. 10,	\$2 61	Dec. 22,	\$2 83
" 17,	2 66	" 29,	2 92
" 24,	2 68	Jan. 5,	3 05
Dec. 1,	2 68	" 12,	3 31
" 8,	2 74	" 19,	3 30
" 15,	2 83	" 26,	3 40

The extreme prices of the season were \$2 50 a \$3 50, but there were few sales below \$2 60, and only one or two lots at over \$3 40. We here give the opening, highest, and closing prices for the last four years:

	Opening price.	Highest price.	Closing price.
1846-7.....	\$2 75.....	\$4 50.....	\$4 40 a 4 50
1847-8.....	4 25.....	4 25.....	2 50 a 2 80
1848-9.....	3 50.....	4 00.....	3 25 a 3 40
1849-50.....	2 61.....	3 50.....	— a 3 40

It was ascertained at the close of the season that the whole number packed in this city, during the season, was 401,755 head. This compares as follows, with the business of preceding years:

1846-7.....	305,000 head	1848-9.....	410,000 head
1847-8.....	500,000 "	1849-50.....	401,755

There was no reliable statement prepared, of the number packed in the West, but from the quantity of provisions received at the several outlets, it is to be inferred that there was no deficiency, but that the number was fully as large as in any previous season.

PROVISIONS.

The business of the past year may be said to have generally maintained a healthy tone. The market for hogs opened at low prices, leaving packers a fair margin for profits, and from the close of the packing season up to the 1st of June, prices exhibited an upward tendency; since that time the market has been heavy, and at the close it tends in favor of the buyer. In our last annual remarks, under this head, we stated that the probability was, the foreign demand for hog products would not equal the expectations of American dealers. From a table, which we have compiled from official and other equally reliable sources, of the exports from the United States to foreign countries, from Jan. 1st, to latest dates, in the last two years, embracing a period of 7½ months, we find that the amount of the several articles exported were as follows:

	Bacon, lbs.	Pork, bbls.	Beef, bbls.	Lard, kegs.
1849	32,914,250	145,676	48,002	439,252
1850	23,749,020	120,893	66,682	840,906

It is seen that in bacon and pork there has been a considerable decrease. There has been a moderate increase in beef, and an increase of about 100 per cent. in lard. The heavy shipments of the latter had a great effect upon prices in this and other American markets, as will be seen by our remarks on that article.

The following figures show the amount of each article exported to Great Britain and other foreign countries:

	Bacon, lbs.	Pork, bbls.	Beef, bbls.	Lard, kegs.
To Great Britain	18,831,897	33,555	37,447	555,468
Other foreign ports ..	4,917,123	87,338	29,236	295,438

The prospects for a European demand during the present year is no better than at the commencement of the season just closed, and it is probable that there will be, in the aggregate, a decrease in the exports of the hog products to that country.

In our last annual report we stated that the stock of all descriptions, except lard, was believed to be light, as shown by the exports, from September the 1st to the commencement of the new season, when, it is to be supposed, but little of the old stock remained on hand. The amount held on the 1st of September, 1849, and same time, 1848, was as follows:

	1848.	1849.
Lard, bbls.	2,002	2,966
do. kegs.	22,149	46,733
Bacon, hhds.	4,408	2,782
do. tierces.	1,309	1,250
Pork, bbls.	23,480	12,751
do. lbs.	61,202	5,000

We have not attempted to ascertain the present stock by actual count, but of pork and lard it is believed to be unusually light. The supply of bacon is moderate, but not heavy. In referring to the market during the year, we shall for convenience notice each article separately, and commencing with

PORK.

We find that at the close of the year 1849, the market exhibited a downward tendency, and towards the close of September mess sold as low as \$7 62. About the first of October there was a slight reaction, and from the 13th to the 20th \$8 was the ruling rate, and it continued to range from \$7 87 to \$8, until the 10th of November, when the market again began to give way, and for the week ending the 24th, \$7 62 was the average price. This was the lowest point reached during the year, except for one lot, which was sold about the commencement of the packing season, for future delivery, at \$7 50. On the 1st of December the market began to improve, and on the 22d \$8 50 was obtained, and the weekly average prices from that date until the 17th of May, ranged between \$8 37 and \$8 75, showing an unusually steady market. About the 24th of May, it being ascertained that the stock was very light, holders advanced their figures to \$10, and subsequently sales were made at \$10 50, and from June 1st to July 12th, prices varied from \$10 to \$10 50. The demand, how-

ever, was exceedingly limited, and the sales were chiefly of a retail character. This state of things deprived the market of some of its firmness, and although there have been but few lots pressing, prices have since given way, and the last sale heard of, which was made on the 24th ult., was at \$9 75; and we may remark, that the market closes heavy at \$9 75 a \$10, with a very moderate demand. This price is 75c. a \$1 above the rates current on the 1st of September, 1849; but the market cannot be said to be better than it was then, as regards its relation to the future, as, with a stock equal to that held at the commencement of the last commercial year, very little over \$9 would be obtainable. The exports for the year are 193,581 bbls. against 186,192 bbls. in 1848-9, and are larger than in any previous year, except 1847-8, when they were 196,486 bbls. The amount exported from this port is a trifle larger than one-third of the entire receipts at New-Orleans.

BACON.

At the commencement of the last commercial year holders were realizing very full prices for every description, but rates soon thereafter began to give way, and on the 20th of October, when the season for old bacon closed, they had receded from 8½c. for plain hams, 5½c. for sides, and 4½c. for shoulders, to 5¼ a 6c., 4c. and 3¾ a 4c., respectively. The market for new bacon opened in January at 5½ a 6c. for hams, 4½c. for sides, and 3½c. for shoulders—and these were the lowest rates of the season. Prices gradually gained firmness until the 12th of July, when the current rates were 6¾ a 7c. for plain hams, 5c. for sides, and 4½c. for shoulders. These were the highest weekly average rates obtained during the year; and since July the market has exhibited a downward tendency, and closes at 6½, 4¼ a 4½, and 4c., packed, for hams, sides and shoulders, with a very moderate demand. Holders, however, are generally pretty firm, and some lots of sides and shoulders, in choice condition, are not offered at our quotations. The stock, as already remarked, is moderate, but it is believed that it will be sufficient to supply the demand until the incoming of the new product. Our tables show a falling off in the exports, during the year, of 15,941 hhds.; but by taking the increase in tierces, and that shipped in bulk, and the boxes which were kept distinct the last year, for the first time, and reducing all to hogsheads, the decrease is equal to only 3,851 hhds. The receipts at this port during the year show an increase of 1,385 hhds. bacon, 1,893 tierces, do., and 4,008,286 lbs. pork and bacon in bulk.

The number of boxes of pork exported during the year were 13,448; equal to 5,379,200 lbs., all of which was intended for the English market. This is equal to one-half the entire exports of bacon from New-York to foreign ports since January 1st, and nearly one-fourth the whole amount exported from the U. States in the same time. Fully one-fourth the bacon shipped to the English markets, is packed at this place, and, as we remarked in our last report, the business is chiefly done by gentlemen who fully understand the wants of foreign consumers.

LARD.

The market for this article fluctuated but little during the year, but throughout it maintained a steady and healthy appearance until the close, when the demand fell off and prices began to droop. On the first of the last year the market was heavy at 6c. for prime bbl., and 6½c. for keg. These prices, however, were not subsequently realized, and on the 14th of September the average price was 5¾c. The market continued to droop until October 6, when 5¾c. was the current rate; at this point a reaction took place, and prices advanced to 5½c.; but early in December they again went down to 5¼c. Early in January there was a permanent advance, a prime article commanding 5¼c.; and from that point it steadily improved until 6¾ a 7c. was reached in the latter part of June. Early in July the market lost its buoyancy, and prices receded about the last of August to 6¼ a 6½ cents for prime keg, which are the closing rates. The market is almost if not entirely bare of prime barrel, and it would command fully as much as keg. The extreme prices during the year were 5¼ a 7c. Last year the extreme rates were 6 a 8c., which shows that the prices of 1848-9 were the

most remunerative. The consumption of lard during the year, by lard oil manufacturers, was heavier than ever before, being between thirteen and fourteen million of pounds. We may expect this demand to continue, while prices remain within a moderate range, say \$5½ a 6¼. It is stated that at anything over the latter price, manufacturers seldom realize any profit.

Last season we had occasion to notice a great decrease in the exports to foreign ports. This year we have a corresponding increase to notice, the shipments from the United States since Jan. 1st being 840,906 kegs, against 439,252 kegs, same time last year. The bulk of this was exported during the winter and spring, the amount sent forward during the last three months being comparatively light. The imports at this port during the year show an increase of 5,659 bbls. and 15,142 kegs; and the exports an increase of 1671 bbls. and 39,658 kegs.

BREADSTUFFS.

At the commencement of the last commercial year, flour had reached a high point, in consequence of the deficiency in the wheat crop of 1849, the effects of which then began to be sensibly felt. The high prices current, however, brought forward considerable supplies of surplus wheat that had remained over from the crops of previous years, and under increased receipts, prices declined in September, from \$5 to \$4 50. In October there was a reaction, and on the 1st of Nov. \$4 85 was the average weekly price. From this date until April 26th, prices fluctuated between \$4 40 and \$5. In May prices improved, and continued to advance until the 7th of June, when \$5 85 was the average quotation. From this point prices receded, reaching \$4 on the 19th of July. During the two last weeks of July an advance was again established, and \$4 25 a \$4 50 were obtained, but during the month of August prices ranged from \$3 85 to \$3 60, closing at about \$3 62. The supplies of new wheat have so far come forward very slowly, and there has yet been nothing approaching to a "glut" in the market, but on the contrary, the demand has been fully up with the supply, and this state of things prevented prices from reaching that low point to which it was generally supposed they would recede.

WHEAT.

Wheat has varied during the year, between 70 and 110c. The supplies throughout were quite limited, and generally inferior in quality, and the operations of the city mills were, in consequence, greatly restricted. The receipts by public conveyances, as exhibited in our tables, show a decrease compared with last year, of 56,593 bushels, but much the heaviest deficiency was in the receipts by wagons, of which we have no account. The market is now steady at 70c., with a demand fully equal to the supply.

CORN.

High prices were maintained for this article throughout the year, the lowest price being 24c., and that was submitted to only for a few days. The extreme average rates were 24 a 51c., exclusive of packages, and the average for the year was 38½ cts., against 28 cts. in '48-9, and 27½ cts. in '47-8. The comparative scarcity of the article in other Western markets, and the relative high prices current, caused a greatly increased export demand in this market, and we find that the receipts at this port, during the year, show an increase of 392,520, which is a little more than 50 per cent. over those of last year. This increase was owing to supplies being attracted hither from Northern and Eastern markets, by the high prices current.

WHISKEY.

The receipts at this port during the year, show an increase of 19,042 barrels, and the exports an increase of 42,529 bbls. This is one, and perhaps the only article in our trade, the consumption of which is not affected by the price. During the year prices have ranged from 18½ a 23¼c., the currency most of the time being above 20c. The average price for the year is fully 5c. higher than that for 1848-9.

MANUFACTURES.

The manufacturing business having become a leading and important branch of our city's industry, it is important that we should devote to it a considerable portion of our annual report. In the last report, presented at the close of the commercial year, no attempt was made to give a statement of this business, as it had been found impossible to collect such facts as would have enabled us to submit a reliable report of even a portion of the leading branches, most of the manufacturers being unable to see the advantage to themselves or the city, of such an exhibit as it had been proposed to make. Most of the obstacles, however, which were then in the way, have been overcome, and we have succeeded in collecting such information as enables us to present a sufficiently reliable statement of nearly all the principal branches of manufactures in the city.

It is only a few years since this place took her stand among the manufacturing cities of the Union, and yet so rapid has been the progress in this branch of business, that there is none, perhaps, that can boast of a greater variety of manufacturing establishments, and now our city may be said to be *the* manufacturing, as well as *the* commercial metropolis of the West.

When we compare the present condition of the business of our city, with that of a few years since, it must be admitted that our prosperity, in a commercial point of view, is in a great degree attributable to the rapid growth of the manufacturing, and it would now be impossible to sever the connecting link between the mercantile and manufacturing interests. For manufacturing purposes, as it has often been remarked by strangers as well as citizens, there is not perhaps in the Union, and certainly not in the West, a more desirable location than this. Situated as we are, in the midst of the richest and most populous states in the Western country, and in the most prosperous state from the Atlantic to the Pacific, and being connected by railroads, river and canals, with most of the principal places in the West, our manufacturers as well as our merchants, must continue to command a large share—the heaviest portion—of the Western trade, and there does not seem to be the least probability, and hardly a possibility, of the leading interests of the city being checked in their progress. In many branches it is impossible for Eastern manufacturers to compete with those of the Western valley. Here facilities are great; iron, coal, lumber, &c., are abundant, and of easy access; food is cheaper than in the East; labor is fully as low, and in addition to all these, we have the advantage of being *among*, or *convenient* to the consumers, thus saving to the latter the heavy cost of transportation between Eastern and Western cities. Our market has therefore become a prominent one for manufactures, and this has given, and will continue to give, additional impetus to other branches of business, so that the manufacturer in attracting customers for himself, attracts them also for the merchant. With these few general remarks, we proceed to notice, under respective heads, the several leading branches, commencing with

ROLLING MILLS, FOUNDRIES, &C.

There are in the city and vicinity (all of which properly belong and find a market for their products here) seven rolling mills, viz.:—Licking Iron Works, Morrell, Stewart & Co.; Cincinnati Iron Works, Shreve, Steele & Co.; Bloom Forge Iron Works, Gaylord & Co.; Covington Iron Works, J. K. McNickle; Vulcan Iron Works; Cincinnati Iron Company; Newport Iron Works, and D. Wolff. The capital invested in these establishments is \$760,000; products annually, \$1,580,000; annual consumption of pig iron, 15,900 tons; do. scrap iron, 1,050 tons; do. blooms, 5,800 tons; consumption of coal, 1,100,000 bushels; hands employed, 945.

The stove foundries number fourteen, viz.: Etna Foundry, Lewis & Towncliff; stove foundry, D. Root; Clay Iron Works, Jas. Webb; Covington Iron Foundry, Geo. W. Ball; Journeymen's Union Foundry Association; Buckeye Foundry, Gould & McCracken; Fulton Foundry, R. R. Andrews; Telegraph Iron Works, W. C. Davis & Co.; Western Iron Foundry, Gilpin & Matthews; Stove Foundry, French & Winslow; do. do., W. & R. P. Resor; do. do., Goodhue & Co.; do. do., Noyes & Rogers; do. do., Wolff & Co. Aggregate capi-

tal invested, \$557,000; products, \$892,000; pig iron consumed, 9,450 tons; scrap do., 725 tons; coal, 102,900 bushels; coke, 86,000 bushels; number of hands employed, 880. The number of stoves manufactured annually, is about 101,000, of which, the greatest portion are shipped without trimmings—the whole West being supplied to a great extent, from this point—and our estimate of the products does not include the trimmings attached to those disposed of in the city by retail.

The Machine Shops and Foundries number twenty-eight, viz.: Hanks & Thompson, Lyon & Bell, Milligan & Clements, R. S. Temple, Miles Greenwood, Miles Greenwald & Co., J. S. Pollock, J. & J. Fishwick, Jas. Todd & Co., J. Bevan & Co., W. R. Andrews, D. Griffey, Martin Anshutz & Co., George Shields, Greenwald & Bonsal, Lathrop & Co., A. Gardner & Co., Aschcraft & Rusk, Baker & Morton, Horton & Macy, D. A. Powell, Jas. Goodloe & Co., J. H. Burrows & Co., Reynolds, Kite & Co., Tatem, Niles & Co., A. Harkness & Co., A. B. Holabird, and — White. Included in these are two Pipe Foundries, which are not in operation, and we do not embrace them in the following aggregate. Number of hands employed, 1,799; capital, \$1,498,000; products, \$2,459,000; consumption, 14,670 tons of pig iron; 156 do. blooms; 505 do. scrap; 545,000 bushels coal, 95,500 do. coke.

RECAPITULATION.

	Capital.	Products.	Consumption of iron.	Consumption of coal and coke.
Rolling mills.....	760,000	1,580,000	22,750	1,100,000
Stove foundries.....	557,000	892,000	10,175	188,900
Machine shops.....	1,498,000	2,459,000	15,271	640,500
Total.....	2,815,000	4,931,000	48,196	1,929,400

The number of hands employed in the above establishments, are as follows: Rolling Mills, 945; Stove Foundries, 880; Machine Shops, 1799.

The iron business in common with every other branch of industry, has suffered much depression during the last two summers, in consequence of sickness, but it is now reviving, and has generally a very healthy appearance. Pig iron, which was exceedingly dull in the spring and early in the summer, is now in brisk demand at \$26 per ton, which is three dollars above the lowest point reached, and all good lots are taken freely on arrival. The shipments of stoves during the past year, have been as large as in any previous season, but the profits were less satisfactory.

NOTE.

Since the publication of the above in the Price Current, we have discovered that the Globe Iron Works of Messrs. Worthington & Pullan were not mentioned among the Rolling Mills. The products of this establishment were included in the aggregate given, but the names of the works and proprietors were accidentally omitted. We also learn that the stock of the Cincinnati and Vulture Mills has been purchased by one or two individuals, and the latter have very recently concluded to remove the machinery, &c., to St. Louis. This change was determined upon after the facts upon which our report is based, were furnished, and this accounts for the discrepancy which we have corrected.

FURNITURE.

It is only a few years since steam was introduced into the furniture factories, and although at the outset there were many difficulties to be contended against, the business succeeded wonderfully, and it is now an important branch of the manufacturing business of the city. At first no attempt was made to manufacture other than the common or plain articles of furniture, but now every description almost, from the common bedstead to the most costly articles, are made in some of the extensive steam establishments, and steam made furniture is no longer regarded as inferior to that made by hand, but on the contrary, the former

is generally preferred. The great reduction in price, caused by the introduction of steam, has attracted a large trade from the Western and Southern country, and Cincinnati furniture is now purchased for the most distant portion of the states bordering on the Ohio, Mississippi, Missouri, Illinois, Cumberland and Tennessee rivers. Considerable quantities are also sent out by canals and railroads, and indeed we may say there is a demand from every section. The reduction in price within the last five years, is on an average, 33 per cent.; on some articles the reduction is 50 per cent., but on others it is less—the finer descriptions requiring a considerable amount of hand-work. There are in the city proper nine steam factories, which do an average yearly business of \$668,500. If we add to these the business of the several establishments in the city where steam is *not* used, the furniture trade would be about one million dollars. The following are the proprietors of the steam factories, viz.:—Clawson & Mudge, John K. Coolidge, Geo. W. Coddington, Walter & Meader, Henry Closserman, Smith & Hawley, Mitchell & Rammelsberg, and H. Weiderecht & Co. In seven of the establishments named, there are manufactured annually, 4,250 bedsteads, 14,500 doz. chairs, 7,500 bureaus, 1,000 writing desks, 4,500 washstands, 1,560 sofas, 2,500 card tables, and 200 wardrobes. In order to give an idea of the *quality* of “the steam furniture,” we will state the range of prices for some articles, from which it will be seen that the business is not confined to the common or even middling descriptions; washstands, \$1 50 to \$30 each; chairs, \$4 50 to \$90 per doz.; wardrobes, \$6 50 to \$70 each; bureaus, \$15 to \$40; sofas, \$15 to \$60; writing desks, \$7 50 to \$30 each. With the great facilities now possessed at this place for the manufacture of every article in the furniture line, and the rapidly increasing demand for the supply of the extending population of the West, we cannot but believe that the increase in the business, during the next year, will fully equal that of the past.

BUILDING MATERIALS.

The introduction and growth of this business has been most extraordinary, and the effect which steam and machinery has had upon the price of carpenter work is not less so. A few years ago flooring boards were the only article worked by machinery, if we except two or three sash establishments where horse power was used for performing the heaviest part of the work, and where a considerable amount of sash was manufactured. We have now, however, six factories where sash, doors, blinds, base, mouldings, and other trimmings, are manufactured, and these articles are supplied not only to the city builders, but to a considerable extent to the whole Western and Southern country. So great has been the reduction in price that builders living fifteen hundred miles from here are able to supply themselves on more favorable terms, from our factories, than they can manufacture the article at home. City builders also supply themselves chiefly from the factories, and the consequence is, that the price of building has fallen greatly. To show the extent of the decline, we will mention that some years since, the master builders of the city established a “bill of prices,” and work was done about seven years since, at fifty cents on the bill, which was then considered a very low price, but now the great bulk of work is done at *twenty* and *twenty-five* cents, and it is only occasionally that as high as thirty cents is obtained. This great reduction is readily accounted for by the decline in the price of work, which is supplied by the factories 50 per cent. less than before the introduction of machinery. We have already remarked that the whole Western and Southern countries are supplied, to some extent, from this place; to be more specific, we will state that shipments are constantly making to points on the lower Ohio and Mississippi, to New-Orleans, on the Upper Mississippi, Missouri, and Illinois rivers, also, along the Tennessee, Cumberland, and Kentucky rivers; in a word, wherever a steamboat navigates, and inland, as far as the canal boat and locomotive penetrates. There are, as already stated, six sash, door, and blind factories, and fourteen flooring mills in the city. The total value of materials manufactured during the year, is about \$200,000, and about one-third of this amount is exported. In addition to the steam establishments, there are various small factories where articles are manufactured by

hand, or horse power is used, and it is estimated that the aggregate annual products of the latter is \$75,000.

The great perfection to which machinery has been brought, is well worthy of remark. Tenoning and mortising is done with more exactness than the work could be performed by hand, and mouldings for trimmings and sash are neatly made, and come from the machine ready for the finisher.

We cannot give a more conclusive proof of the great extent to which this business has progressed, than by stating the dimensions of a factory that is being erected by Messrs. Hinkle & Guild, which is to be entirely devoted to the manufacture of building materials. The building fronts on Front-street and runs back to the river, and is sixty feet front by 250 feet deep, the river front seven stories high, and the Front-street front, five. This building will be capable of containing machinery that will give employment to 500 hands, and we have no doubt that before long there will be work sufficient for that number. Attached to the main building is a dry house, 12 by 40, six stories high. Through this steam pipes will pass, and heat will be thereby created, which will perfectly season all the lumber that will be used in the factory. We had intended to have given here a comparative statement of the prices of sash, doors, &c., but our limited space compels us to bring this subject to a close, as we have yet several branches to notice.

CARRIAGES.

Until recently the Western market was chiefly supplied from Eastern factories, but this trade is now greatly interfered with, and we may say almost entirely cut off by our own manufacturers. The business has also been brought to great perfection, and carriages manufactured in the city during the last year, would do credit to any Eastern establishment, and the disposition manifested by some to buy Eastern work, is only accounted for by the singular desire that a portion of our people have for spending money from home. As an evidence of the advantages of the West for manufactures, we may state that a Connecticut axle-tree manufacturer, who shipped his manufactures West, finding it impossible to compete with our own establishments, recently removed to Pittsburgh, and is now carrying on his business at that point.

There are in the city ten factories, viz.: Hoyt & Hull, H. P. Gryden & Co., J. W. Gosling & Co., G. C. Miller & Sons, S. & H. Barnes, Joseph Dalton, John Wiltz, Ward & Co., John Roberts, I. & B. Bruce & Co. The capital invested is \$132,000, annual products, \$345,000; hands employed, 300. In addition to these there is a large number of omnibus manufactories, including the extensive establishment of Keck & Davenport, whose annual business alone is not far from \$100,000.

COTTON FACTORIES.

Our city contains comparatively but a small proportion of the cotton factories of the West, the whole number in this city, Covington and Newport, being only five. There are, however, several in the country, which, although not situated here, are owned in whole, or in part, by our citizens, and all in this section of country depend on this city for a market for their products. There are, as we have already stated, five factories in the city and vicinity, viz.: Franklin Factory, Gould, Pearce & Co., O'Shaughnessy & Co., Covington Cotton Factory, J. C. Giessendorff. These run 19,400 spindles, produce annually, 3,186,000 yds. of brown sheetings, and 1,014,000 lbs. cotton yarns, consume 4,350 bales of cotton, and employ 505 hands. The value of the annual products is about \$458,000. The capital invested in the buildings and machinery alone, is \$220,000.

During the past year we took considerable trouble to collect statistics of the cotton factories in the West, and we believe we succeeded in getting accounts from all the leading establishments. According to the statement made up when our returns were completed, the whole number of spindles running is 102,220, and the annual consumption of cotton is 27,350 bales.

LINSEED AND LARD OIL.

There are in the city, four Linseed Oil Mills, which pressed during the last year, about 100,000 bushels of seed, produced 200,000 gallons of oil, and 2,000 tons of oil cake. These establishments have a capacity for pressing 347,000 bushels of seed annually, which would produce 600,000 gallons of oil, but that quantity of seed has never been obtained, nor would there be a market found for such a large quantity of oil, unless the seed would be furnished at such a price as to enable Western manufacturers to compete with foreign oil in the Eastern markets. This, however, cannot be done until the manufacture of flax becomes a *business*, and a pretty extensive business in the West. This may, we think, be expected at no very distant day, and then the farmers, finding a market for both the lint and seed, will give more attention to the cultivation of flax.

In relation to the lard oil business, we have to say, that the statement we present is based entirely upon estimates, manufacturers having refused to give any information on the subject. The estimates were made, however, by persons having a pretty extensive knowledge of the business, and we have reason to believe that the statement approximates sufficiently near to the truth to warrant us in giving it a place in our report. There are 40 establishments, small and large, in the city, which produce annually about 33,110 bbls. of oil, and seven million pounds stearine. The aggregate value of the products is about \$1,119,000.

CASTOR OIL.

During the year a castor oil mill has been erected in our city, by Messrs. Conklin, Wood & Co., which will very soon go into operation.

SOAP AND CANDLES.

There are eight extensive factories in the city, two of which have been erected this season. We are able to give no other facts connected with this business, than those furnished in our tables, showing the exports from this port for a series of years.

WHITE LEAD AND PAINTS.

There are four white lead factories in the city, viz. : Conkling, Wood & Co., L. Carneal & Co., R. Conkling & Co., and R. Conkling & Sons; the annual products of which is about \$256,000. Connected with that of Messrs. Conkling, Wood & Co., is an establishment where every variety of colored paints are manufactured, and of this the annual business is about \$25,000.

BOOTS AND SHOES.

The manufacture of boots and shoes is a business which has, and continues to make, rapid progress in our city. Most, indeed nearly all, of the work sold in this and other Western markets, a few years since, was imported from the East, but within five years the business of the city has increased two hundred per cent., and we have now in operation six wholesale factories, which employ about seven hundred hands. There are altogether twenty-seven wholesale houses in the city, all of whom manufacture more or less; and it is estimated that there are in all, fifteen hundred hands employed in this business.

The value of work manufactured by wholesale houses, is about \$200,000, and the probable value of boots and shoes *imported* is \$1,000,000. Eastern work is sold ten per cent. cheaper than that manufactured in the city.

We have, in the above remarks, given as reliable statements of the several branches, as it was possible to obtain. The whole was collected with much care; and we believe the reports to be sufficiently reliable for all practical purposes. There are many other branches of business in the city which we proposed noticing, but our report is already so extended, and our space so limited, that we must bring the subject to a close with a recapitulation of the aggregate products of the several branches:

RECAPITULATION.

Rolling Mills	\$1,580,000
Stoves and Hollowware	892,000
Machine Foundries	2,459,000
Furniture	668,500
Building Materials	375,000
Carriages	445,000
Cotton Factories	458,000
Linseed Oil	170,000
Lard Oil	1,119,000
Castor Oil	10,000
White Lead and Paints	280,000
Boots and Shoes	200,000
Total	\$8,656,500

It is seen that we have not made any estimate of the products of the soap and candle business. Without this we have twelve branches, the annual products of which is \$8,656,500. We can thus see how much the city is indebted to manufactories for her unprecedented prosperity, and that, in awarding to her the highest place among the manufacturing cities of the West, we said no more than was warranted by the facts which we have endeavored fully and fairly to present.

STEAMBOAT BUILDING.

From the discouraging prospects for the boating business, that were exhibited at the commencement of the year, and which did not improve materially as the season advanced, we were prepared to find a great falling off in the steamboat building at this point; and when we learned that only eleven boats had been built at the port during the year, we were not disappointed. Within the last few months, however, business has greatly revived, and there is at this time about 25 boats on the stocks, all or nearly all of which will be completed in season for the fall business. The following is a list of the boats and barges registered during the year ending Aug. 31st ultimo:

Name.	Tonnage.	Value.	When built.
Natches, No. 2.....	520	33,000	October, 1849
Trustee.....	149	8,500	" "
Ohio.....	348	25,000	" "
Barge Eliza.....	204	2,800	" "
" Transport.....	194	2,700	" "
" Buckeye.....	170	2,490	Novem., "
Delta.....	396	27,000	" "
Jack Hays.....	189	12,000	Decem. "
Gulnare.....	347	24,000	" "
Wisconsin, No. 2.....	297	27,000	" "
Pochahontas.....	307	27,060	" "
Iron-ton.....	187	10,500	January, 1850
Barge Temple.....	198	2,300	March, "
R. H. Lee.....	158	9,000	May, "
Crescent.....	548	28,000	" "
Barge Uncle Sam.....	260	4,000	June, "
Total.....	4,560	245,100	

The number and tonnage of the boats built during the previous four years, were as follows:

Year.	No.	Tonnage.
1848-9.....	23	7,281
1847-8.....	29	10,233
1846-7.....	32	8,368
1845-6.....	25	5,657

It is proper to remark here, that the building business at points above this place, including Pittsburgh, do not show that deficiency that we have to record, but on the contrary, there is (so far as we are able to judge from appearances and partial reports) an increase in the aggregate; and tonnage already afloat, and to be put afloat, on the Western waters this fall, will be fully adequate to any demand that may be experienced.

EXPORTS AT CINCINNATI.

For five years, commencing September 1st, and ending Aug. 21st., each year.

ARTICLES.	'45-'46	'46-'47	'47-'48	'48-'49	'49-'50
Apples, green.....bbls.....	3920..	14444..	8512..	5924..	3519
Alcohol.....	1615..	1943..	1771..	3022..	3302
Beef.....	8896..	10367..	14811..	12523..	7558
Do.....	11301..	7970..	3615..	9332..	6625
Beans.....bbls.....	2048..	3782..	1097..	1685..	2496
Brooms.....doz.....	1514..	5108..	3760..	3333..	7265
Butter.....bbls.....	1624..	1348..	2937..	1272..	964
Do.....firkins and kegs.....	20390..	31194..	28315..	24398..	24393
Bran, &c.....sacks.....	.....	3842..	3761..	233..	4322
Bagging.....pieces.....	19716..	8867..	12632..	15910..	9353
Corn.....sacks.....	.....	258198..	53021..	7176..	57248
Cornmeal.....bbls.....	1258..	88882..	19999..	3660..	1179
Cheese.....casks.....	604..	1132..	30..	122..	106
Do.....boxes.....	35459..	70104..	59374..	55134..	86902
Candles.....	3757..	16622..	29189..	39640..	67447
Cattle.....head.....	168..	872..	733..	97..	30
Cotton.....bales.....	.....	5019..	6123..	4009..	1896
Coffee.....sacks.....	.....	13037..	18587..	18909..	22030
Cooperage.....pieces.....	18388..	41121..	36924..	55617..	73637
Eggs.....bbls.....	4787..	10308..	9450..	5229..	4246
Flour.....	194700..	581920..	201011..	267420..	98908
Feathers.....sacks.....	29..	4000..	3736..	3824..	5380
Fruit, dried.....bush.....	684..	16077..	5074..	8317..	1850
Grease.....bbls.....	370..	694..	4268..	6922..	7597
Grass seed.....	642..	3967..	2431..	2387..	2528
Horses.....head.....	654..	2026..	1268..	378..	468
Hay.....bales.....	.....	327..	94..	1040..	564
Hemp.....	.....	8733..	5659..	2198..	1164
Hides.....lbs.....	.....	164930..	60880..	73029..	62865
Hides.....No.....	.....	12444..	9024..	7731..	11225
Iron.....pieces.....	2937..	68905..	127193..	43025..	54075
Do.....bbls.....	.....	9339..	17351..	7081..	36245
Do.....tons.....	9238..	5646..	6916..	6270..	5767
Lard.....bbls.....	22747..	49878..	81679..	37521..	39192
Do.....kegs.....	135008..	150228..	208696..	130509..	170167
Lard Oils.....bbls.....	1650..	6199..	8277..	9550..	16984
Linseed Oil.....	455..	6032..	3878..	3020..	4879
Molasses.....	.....	9046..	18332..	17750..	25878
Oil Cake.....tons.....	2792..	5246..	4397..	2274..	743
Oats.....sacks.....	17944..	140067..	41675..	212..	5023
Potatoes.....bbls.....	14956..	34130..	15687..	7073..	5283
Pork and Bacon.....hhds.....	15287..	31538..	37162..	39470..	23529
Do.....tierces.....	3874..	7894..	8862..	10930..	22477
Do.....bbls.....	29302..	137218..	196186..	186192..	193581
Do.....in bulk.....lbs.....	404426..	3478830..	759188..	924256..	2310699
Rope, &c.....packages.....	13037..	8723..	5556..	4369..	3151
Soap.....boxes.....	2708..	10080..	11095..	11303..	17443
Sheep.....head.....	100..	726..	1400..	522..	....
Sugar.....hhds.....	.....	4998..	11559..	8443..	9650
Salt.....bbls.....	.....	65346..	39656..	39960..	29509
Do.....sacks.....	.....	4416..	5057..	5403..	8301
Seed, Flax.....bbls.....	138..	291..	2785..	808..	333
Sundry merchandise.....packages.....	23603..	224957..	341363..	210049..	615641
Do.....do.....tons.....	2106..	18179..	16849..	21466..	11109
Do.....liquors.....bbls.....	353..	7193..	9364..	10913..	11798
Do.....manufactures.....pieces.....	7975..	22251..	42412..	94934..	56810
Do.....produce.....packages.....	1085..	17879..	28822..	17609..	10327
Starch.....boxes.....	2499..	5820..	8177..	7904..	9491
Tallow.....	3452..	4543..	5682..	4975..	4311
Tobacco.....kegs and boxes.....	1473..	9718..	9352..	7497..	6904
Do.....hhds.....	3803..	6011..	3812..	3309..	4847
Do.....bales.....	.....	273..	123..	126..	77
Vinegar.....bbls.....	204..	3814..	2753..	1288..	2404
Whiskey.....	133220..	183928..	186509..	136911..	179540
Wool.....bales.....	.....	2452..	2298..	1109..	2156
Do.....bags.....	.....	36710..	7037..	10230..	16841
White Lead.....kegs.....	.....	.....	.....	.....	40294
Castings.....pieces.....	.....	.....	.....	.....	54399
Do.....tons.....	.....	.....	.....	.....	2385
Pork.....boxes.....	.....	.....	.....	.....	13448

VALUE OF SPECIFIC ARTICLES

Imported into Cincinnati from September 1st, 1849, to August 31st, 1850, and same time last year.

Articles.	1849-'50.		1848-'9	
	Amount.	Av. price.	Value dollars.	Value d. lars.
Apples, barrels.....	6,445..	1 75..	11,278..	49,730
Beef do.....	801..	9 00..	7,209..	3,132
Barley, bushel.....	137,925..	75..	103,443..	56,849
Butter, barrels.....	3,674..	27 00..	99,198..	189,994
Do. kegs.....	7,487..	8 00..	59,869..	60,000
Blooms, tons.....	2,545..	60 00..	152,700..	571,140
Corn, bushels.....	649,227..	38..	246,706..	96,574
Cheese, boxes.....	165,940..	2 40..	398,206..	347,834
Cotton, bales.....	8,551..	45 00..	384,795..	317,030
Coffee, sacks.....	67,173..	21 00..	1,310,633..	839,563
Flour, barrels.....	231,859..	4 75..	1,101,329..	1,690,850
Hemp, bales.....	12,062..	14 00..	168,868..	168,526
Hogs, head.....	410,000..	6 00..	2,460,000..	3,075,000
Lead, pigs.....	49,179..	3 40..	167,208..	143,495
Lard, barrels.....	34,173..	13 00..	444,246..	399,196
Lard, kegs.....	63,327..	2 40..	151,984..	90,228
Molasses, barrels.....	54,003..	11 00..	594,033..	553,783
Oats, bushels.....	191,924..	30..	57,577..	46,430
Bacon, hhds.....	7,563..	33 00..	249,579..	247,120
Do tierces.....	2,358..	12 00..	28,236..	5,812
Pork, barrels.....	43,237..	8 82..	381,350..	354,403
Do pounds.....	13,257,506..	34..	497,156..	462,469
Pig metal, tons.....	17,211..	26 00..	447,486..	405,912
Rice, tierces.....	3,556..	24 00..	85,344..	80,760
Sugar, hhds.....	26,760..	51 00..	1,364,760..	992,468
Do bbls.....	13,005..	15 00..	195,075..	113,625
Do boxes.....	2,467..	24 00..	57,208..	22,168
Wheat, bushels.....	332,699..	91..	302,756..	289,041
Whiskey, bbls.....	186,678..	9 00..	1,680,102..	1,111,615
			12,668,379	12,423,717

DESTINATION OF SPECIFIED ARTICLES

Exported from the port of Cincinnati during the last three years, commencing September 1st and ending August 31st, each year.

	To N. Orleans.			Oth. down-river ports.			Up-river ports.			Via canals and railways.			By flat boats.		
	'48-'49	'49-'50'	'48-'49	'49-'50	'48-'49	'49-'50	'48-'49	'49-'50	'48-'49	'49-'50	'48-'49	'49-'50	'48-'49	'49-'50	'48-'49
Beef, bbls.....	11628	16423	298	173	172	305	176	574	254	82					
Do tcs.....	9012	6578			20	47			300						
Butter, bbls.....	806	762	259	177	4	1	109	2	94	22					
Do firkins & kgs	21711	22445	1982	1582	100		169	56	476	310					
Corn, sacks.....	6759	42119		9070	231	3420	186	2642							
Cheese.....	31185	44388	20972	38551	704	1516	1178	1123	1090	1326					
Candles.....	19040	41007	11582	13197	3121	7466	5702	4782	255	999					
Cotton, bales.....	10		20	9	2047	977	1932	910							
Coffee, sacks.....			1214	2807	4155	4800	13338	14423							
Flour, bbls.....	150525	44290	22033	25767	12191	8360	8635	3743	74036	16748					
Iron, pcs.....	2482	1456	22757	26035	1146	2823	16634	23761							
Do. bbls.....	492	1932	5009	18676	141	2580	1439	13057							
Do. tons.....	656	89	1304	777	255	415	4255	4490							
Lard, bbls.....	30112	34809	321	113	1871	1341	4603	1494	614	1435					
Do. kegs.....	190104	110635	2527	2390	3911	11704	265	16850	3702	28538					
Lard oil, bbls.....	6018	9977	1049	927	1802	2221	1671	3843		16					
Linseed oil, bbls..	1419	2540	964	736	385	782	252	821							
Molasses, bbls.....			538	1404	9733	7710	7479	16764							
Pork, hhds.....	26172	16009	679	397	9010	5086	2821	380	788	1657					
Do. tcs.....	8606	11902	84	251	1624	6096	493	2396	123	832					
Do. bbls.....	171776	172624	1082	188	5429	4492	2377	7958	4	28	8319				
Do. pounds.....	8230	21500	446	2560	501805	228400	99705	1629319	2	0000	437920				
Soap, bxs.....	5646	7083	1534	5397	3234	3693	542	575	347	695					
Sugar, hhds.....			347	494	2382	2244	5814	6912							
Whiskey, bbls....	64258	96712	22214	42528	5661	21945	3074	2731	31739	15624					

2.—TRADE AND COMMERCE OF MOBILE—1849-'59.

We are indebted to the Mobile Merchants' and Planters' Price Current for the following particulars of the trade of that city of the past year :

GENERAL REVIEW OF TRADE—1849-'50.

We now present our customary annual review of the market for the season, together with the statistics of the commerce of this port. Our tables have been prepared with the utmost care and attention, and will be found to contain accurate statements of the movements in the various departments of trade.

The receipts of cotton at this port during the year commencing on the first of September last, and terminating this day, are ascertained to be 350,952 bales, being a decrease of 160,764 bales from the preceding season. The stock on hand is 12,962 bales, being 7,916 bales more than last year at this time, and our foreign exports have been 182,177 bales less than last season. The entire crop of the United States appears to be about 2,100,000 bales, being a deficiency from that of the preceding year of 628,596 bales, and of 247,634 bales less than the crop of 1847-'48. It will be perceived that the estimate made in our last annual review has approximated as near to the actual result as could reasonably be expected. The present stock on hand in all the ports is estimated at 143,833 bales, which is 29,854 bales over last year. The stock on hand on the 1st September, 1849, 142,034 bales, added to the receipts of the present season, of 2,100,000 bales, would make the supply for the year 2,242,034 bales. This has been distributed in the following manner: Great Britain, 1,100,000 bales; France, 285,000 bales; other foreign ports, 190,000 bales. The stock now on hand of 140,000 bales being added, makes 1,717,000 bales in all, and thus leaves the amount of 527,034 bales consumed in this country during the year.

We have to record the transit of a year of remarkable success and prosperity. Every element of trade has been in successful operation. The prevalence of peace throughout the world, the abundance of provisions, the general employment of labor, the cheapness of money, and the reaction resulting from the political derangements of 1848, have all conspired favorably to affect the general interests of commerce. The operations in cotton have been, almost without exception, successful. Notwithstanding the unprecedented crop of 1848-'49, it was discovered that consumption had so far gained upon production, that the discouraging appearance of the crop last summer, immediately induced a considerable advance in the prices at which the market opened. These rates were not only sustained throughout the year, but with occasional fluctuations, they have been gradually enhanced until the close of the season, influenced latterly to some extent by the apprehension of another short production. It is a source of gratification to the country, that notwithstanding the many inducements to speculative movements in the article, sufficient caution has been maintained to keep prices within justifiable limits—thus rendering them more permanent, and making the business comparatively safe, with better assurances of a successful termination. Nevertheless, the prices paid in this country have realized to the planting interest a much larger amount of money than has been received for any previous crop. It is a remarkable fact that the crop of this year, though more than six hundred thousand bales short of the production of the preceding season, has actually yielded twenty millions of dollars more, and that about four millions of this excess has been received and distributed among the planting community trading at this port.

The transactions in the general departments of trade have been equally remunerative, and the business of our city and the country has never appeared in a more favorable condition. We commence the year under the most gratifying auspices, and it seems merely to require a maintenance of the prudence hitherto manifested to ensure another successful season.

It is with much pleasure that we revert to the improved condition of commercial affairs immediately at home. The restoration of the original privilege of issue to the Bank of Mobile, granted by the Legislature last winter, has enabled that institution to extend its accommodations to the business community, and

we have heard of no difficulty during the past year, either in the disposal of exchange, or in the negotiation on favorable terms of good business paper. The Southern Bank of Alabama, chartered also last winter, will likewise commence operations in a few weeks, and will furnish additional facilities. The disabilities under which we have hitherto labored in this respect, we think will now be entirely removed. The appearance of our city, notwithstanding the recent loss of our two principal hotels, furnishes ample evidence of growing prosperity. Important improvements in real estate have taken place during the year, and we have scarcely a doubt that a considerable accession has been made to our permanent population. The works of a local character, to which we alluded in our last annual review, have steadily advanced towards completion. Two cotton factories are now nearly, if not quite ready for work, and in the course of a few weeks will commence active operations. The floating dock was launched some weeks ago, and will be in readiness for vessels in a very short time. The great and most important work connected with the prosperity of our city—the Mobile and Ohio Railroad—still continues under the management of its able and effective board of directors to advance in progress. Arrangements have been made for the purchase of the iron, and the directors, by the first of June next, expect to have cars running on the first section of thirty-three miles. The increased ability of our citizens, resulting from the prosperous business of the last two years, gives additional assurances that the enterprise will be pressed with unflagging energy.

One disturbing element alone remains to mar the bright prospect which our prosperity opens to us. But we have yet an abiding faith that a benign Providence will so direct and control the public councils, that this dark cloud may be dispelled, and that the union, peace, and happiness of the country may be perpetuated.

COTTON.

When we closed our last annual review, the market, although dull, was extremely firm, the stock on sale being quite limited. The prospects of the growing crop were so adverse as to render certain a production far below that of the preceding year. The heavy stock in Liverpool operated, however, as a check upon any extravagant advance in prices, and influenced buyers to await the further developments of the season.

The receipts of cotton during the month of September were on a fair scale for that season of the year. Prices, in view of the condition of the growing crop, ruled nearly two cents higher than the Liverpool quotations, and the sales of the month were limited to about 3,000 bales—middlings 9½ a 10 c. During the early part of October, the market was dull and inanimate. The advices from Europe were not satisfactory to holders, and in the absence of orders, prices were supported by the confirmation of a deficiency in the production, which it was believed would finally produce its effect abroad. This expectation was to some extent realized by advices received in the last week of the month, announcing an advance of ¾ d. in Liverpool. This intelligence brought buyers more freely into the market, and considerable sales were effected at a slight advance—middlings closing at 10 c. The sales of the month were 11,000 bales, and the receipts 19,902. November opened with a fine demand, and at advancing prices. The advices from Europe, received in the early part of the month, were regarded as highly favorable, and produced a still further improvement in prices, but the original difference between our quotations and those at Liverpool, existing at the opening of the season, had scarcely yet been equalized by the advances in that market, and operators began to hesitate, and finally refused the rates demanded, on the ground that they were not warranted by the relative position of the markets, and prices which had advanced half a cent, fell back to ten cents for middlings. A continuation of the advances in Liverpool, however, assisted the market towards the close of the month, and brought forward a good demand, under which an improvement of ¼ c. was established—middlings ruling at 10½ c. The sales of the month were estimated at 35,000 bales, and the receipts were 56,937 bales. The early part of December was characterized by a moderate de-

mand, the free receipts making holders rather easier in their pretensions, which being succeeded by unfavorable accounts from Liverpool, occasioned some decline in prices. A considerable amount of orders, however, being pressed on the market towards the close of the month, imparted more animation to the business, and large sales were effected, at an advance of $\frac{1}{4}$ to $\frac{3}{8}$ of a cent—middlings closing at $10\frac{1}{2}$ to $10\frac{1}{4}$ c. Sales of the month estimated at 39,200 bales. Receipts 66,682 bales. January opened with a very firm market, and a good demand, which was maintained throughout the month, the accounts from Europe being of a highly favorable character. The improvement during the month was fully one cent—middlings closing at $11\frac{1}{2}$ a $11\frac{1}{4}$ c., and holders very indifferent to accepting these prices. The sales of the month were computed at 63,000 bales. Receipts 82,267 bales. The early part of February was governed by the same views, and prices were fully sustained during the first week. The large stock pressing on the market, with less favorable advices from Europe, inclined factors to yield something about the middle of the month, and as the character of the foreign accounts was not calculated to sustain the market, a concession of $\frac{1}{4}$ a $\frac{1}{8}$ cent was established at the close of the month. Sales 47,400 bales. Receipts 42,542 bales. The month of March was marked by great uniformity throughout, prices having scarcely fluctuated more than $\frac{1}{4}$ a $\frac{1}{8}$ c. A reduction to this extent, which occurred in the early part of the month, having subsequently recovered, prices were well maintained, with a moderate demand. The quotation for middlings at the close was $10\frac{1}{2}$ c. Sales for the month estimated at 39,600 bales. Receipts 23,577 bales. There was no change from this state of things for April, until near the close of the month. Then the unfavorable character of the spring began to exercise some influence on the market, an increased firmness having, from this cause, been imparted to holders, and a stronger inclination manifested to take hold of the article by purchasers. This feeling resulted in an improvement of nearly $\frac{1}{2}$ cent towards the last week, and the closing quotations were placed at $11\frac{1}{2}$ a $11\frac{3}{4}$ c. for middlings. Sales 27,400 bales. Receipts 13,902 bales. May opened with a continuation of this feeling, which was further improved by the receipt of favorable advices from Liverpool. The transactions were considerable in the early part of the month, at an advance of nearly $\frac{1}{2}$ cent, but as the letters did not cover orders to the extent anticipated, and speculative purchasers being heavily stocked, the demand fell off, and but for the firmness of factors, prices would have given way considerably. Pressing lots, however, were disposed of by shipment or otherwise—the market was relieved and closed with middlings at $11\frac{1}{2}$ c. The sales of the month amounted to 27,800 bales, and the receipts were 11,992. There was scarcely any new feature during June. The demand was very moderate throughout the month, the continued unfavorable character of the weather inducing holders to offer their stocks quite sparingly. Prices, however, improved $\frac{1}{4}$ cent during the last fortnight—middlings being quoted at $11\frac{3}{4}$ cents. Sales 24,300 bales. Receipts 4,685 bales. The first week in July was dull, and prices receded a trifle, but after that, the market became animated under favorable advices from Europe, and quotations gradually advanced until the end of the month, when middlings reached 12 $\frac{1}{2}$ cents. The sales were 25,200 bales. Receipts 3,704 bales. From the commencement to the 17th of August, the market was dull, and prices fell off $\frac{1}{4}$ a $\frac{1}{8}$ of a cent. From that period to the close of the month, prices gradually stiffened, and the season closes with a firm market—middlings fully 12 $\frac{1}{2}$ cts. Receipts 1,747 bales. Sales 13,900 bales.

Ninety-one bales of the new crop have been received, against 56 bales same time last year. The samples that have come under our observation, show care in the handling and a good staple. It classes from good middling to fair.

LUMBER.

The trade in sawed lumber with the West India Islands, which from local causes had fallen off materially last season, has resumed in a good degree its former activity and consequence, and the exports this year amount to 2,288,852 feet, against 692,146 feet the preceding season. The exports to Texas are 2,175,504 feet, which is about 700,000 feet more than last year, and the coast-

wise exports, including 153,825 feet sent to San Francisco, amounts to 2,085,317 feet—making a general aggregate of 7,691,712 feet,—more than double the quantity exported for the year ending first of September, 1849. We do not include in this account the lumber shipped to New-Orleans in licensed vessels, as we have no means of ascertaining its amount. It may be estimated at about 1,000,000 feet. This, it will be seen, is a very important branch of domestic industry, and it is capable of an indefinite extension.

NAVAL STORES.

The receipts of naval stores have increased largely over those of the preceding season, though as yet sufficient attention has not been turned to their production, and our market for these supplies, as yet, is but little known abroad. The total receipts of the season are 1,266 barrels spirits turpentine, worth 30 a 35 cents; 1,061 do. crude turpentine, \$1.50; 3,404 do. rosin, 90 cents a \$2.50; 277 do. pitch, \$1.50 a \$1.75, and 814 do. tar, \$1.75 a \$2. These articles, except such as were needed for domestic use, have been disposed of by shipments to New-York, New-Orleans, St. Louis, Cincinnati, Havana, Vera Cruz and Liverpool. The business is handsomely remunerative, and will soon attain to an importance commensurate with the extent and productiveness of our forests.

MISCELLANEOUS EXPORTS.

The domestic exports not included in our tables, are—104 casks and 185 barrels tallow; 25 tons iron; 430,000 shingles; 23,000 laths; 200 bbls. lime; 14 bales and 1,500 loose hides; 695 bbls. tar; 1,000 do. spirits turpentine; 1,030 crude turpentine; 215 do. pitch; 3,200 do. rosin; 247 bales rope cuttings; 238 sacks rice; 40,000 brick; 4,500 horns; 1,768 pieces leather; 4,300 bones; 293 hhds. and 48 bbls. sugar; 2,584 sacks corn; 233 ash logs; 54 pine masts; 16 yards; 2,752 deck plank; 167 beams; 1,421 square pieces timber; 6,500 oars; 4,100 hand-spikes; 74 empty tierces; 800 empty barrels; 1,604,368 staves, and 1,434 cedar logs.

RIVER RECEIPTS OF COTTON.

	1850.	1849.	1848.
Receipts from Alabama river.....	187,130	259,575	192,949
Do. from Tombigbee.....	101,208	175,254	182,505
Do. from Warrior River.....	56,267	75,448	53,686
By wagons, ferry, &c.....	6,347	8,429	7,196
Total.....	350,952	518,706	436,336

EXPORTS OF COTTON TO FOREIGN PORTS FROM MOBILE FOR TWO YEARS.

Where exported.	Ending 31st Aug., 1850.			Ending 31st Aug., 1849.			
	Bales.	Pounds.	Value.	Bales.	Pounds.	Value.	
To G. Brit. in Am. ves.	60,382	30,676,559	\$3,492,361	69	139,517	71,326,732	\$4,249,707 50
Do. in Br. vessels	101,837	51,483,919	5,852,369	15	150,866	76,955,202	4,744,705 06
Total to G. Britain...	162,219	82,160,478	\$9,344,730	84	290,383	148,281,934	\$8,994,502 56
France, in Am. ves...	39,968	20,385,173	\$2,228,641	32	61,597	31,345,039	1,930,798 50
Do. Fr. vessels...							
Total to France.....	39,968	20,385,173	\$2,228,641	32	61,597	31,345,039	\$1,930,798 50
Spain, in Am. vessels.	350	175,186	\$21,724 76				
Do. Spanish vessels.	7,707	3,606,009	444,164 16	10,203	4,934,695	313,568 57	
Total to Spain.....	8,057	3,781,195	\$405,888 92	10,203	4,934,695	\$313,568 57	
To Russia.....				801	904,504	62,646 15	
Holland.....				1,559	3,385,407	201,574 00	
Belgium.....				9,462	4,287,254	262,963 01	
Hamburg.....							
Sardinia.....	2,922	1,479,923	149,897 44	8,717	4,447,290	253,707 79	
Austria.....				7,494	3,760,934	240,176 13	
Cuba.....				1,125	636,523	40,781 50	
Mexico.....	998	476,742	47,209 04				
Tot. to other for. ports	3,920	1,956,665	\$197,106 48	34,158	17,421,912	\$1,061,848 57	
Grand total.....	214,164	108,283,511	\$12,236,367 56	396,341	201,983,580	\$12,300,718 20	

ABSTRACT OF THE VALUE OF FOREIGN EXPORTS

For the year 1849, and first six months in 1850:

	1849.	Value.
1st quarter, in American vessels.....	\$2,769,113 03	
in Foreign vessels.....	3,602,185 12	\$6,371,298 15
2d quarter, in American vessels.....	\$2,799,569 00	
in Foreign vessels.....	1,288,263 00	\$4,087,832 00
3d quarter, in American vessels.....	\$229,563 00	
in Foreign vessels.....		\$229,563 00
4th quarter, in American vessels.....	\$1,907,969 00	
in Foreign vessels.....	403,658 00	\$2,341,627 00
Total for Exports for 1849.....		\$13,000,320 15

FIRST SIX MONTHS IN 1850.

1st quarter, in American vessels.....	\$1,094,323 00	
in Foreign vessels.....	3,768,140 00	\$4,862,463 00
2d quarter, in American vessels.....	\$1,369,660 00	
in Foreign vessels.....	1,771,545 00	\$3,141,205 00
Total Foreign Exports for six months.....		\$8,003,668 00

ABSTRACT OF THE VALUE OF FOREIGN MERCHANDISE,

Imported into Mobile in 1849, and first six months in 1850.

	1849.	Value.
1st quarter, in Foreign vessels.....	\$43,479 00	
in American vessels.....	31,167 00	\$74,646 00
2d quarter, in Foreign vessels.....		
in American vessels.....	6,474 00	\$8,474 00
3d quarter, in Foreign vessels.....	\$177,939 00	
in American vessels.....		\$177,939 00
4th quarter, in Foreign vessels.....	\$227,251 00	
in American vessels.....	101,347 00	\$328,598 00
Total Foreign Imports for 1849.....		\$589,637 00

FIRST SIX MONTHS IN 1850.

1st quarter, in Foreign vessels.....	\$260,628 00	
in American vessels.....	15,629 00	\$276,257 00
2d quarter, in Foreign vessels.....	\$103,451 00	
in American vessels.....	158 00	\$103,609 00
Total Foreign Imports for six months.....		\$379,866 00

NUMBER OF VESSELS LOADED AT THIS PORT DURING THE YEAR 1849-'50.

	Ships.	Barks.	Brigs.	Schooners.	Total.
American.....	55	61	82	117	315
British.....	36	12	—	—	48
Spanish.....	—	2	22	—	24
Sardinian.....	2	—	1	—	3
French.....	1	—	—	—	1
Dutch.....	—	Galliot 1	—	—	1
	94	78	105	117	392

Four British and one French ship loaded with timber for France, and one Dutch galliot for Holland. Six barks, 23 brigs, and 87 schooners, loaded lumber, &c., mostly for Texas and West Indies.

COMPARATIVE VIEW OF THE EXPORTS OF COTTON FROM THE PORT OF MOBILE,
FOR THE LAST EIGHT YEARS.

PORTS.	'49-'50	'48-'49	'47-'48	'46-'47	'45-'46	'44-'45	'43-'44	'42-'43
Liverpool.....	151667	267477	212715	123792	193287	238038	189539	254301
Hull.....			1650.	1073.	1400.	1470.		
Glasgow and Greenock....	10552.	22906.	13814.	4845.	13395.	28581.	14601.	26088
Cowes, Cork, &c.....			1445.			760.		2993
Total to Great Britain..	162219	290383	228179	131154	208082	268849	204140	283382
Havre.....	39968.	61597.	60328.	39293.	63678.	66928.	51955.	53471
Bordeaux.....								
Marseilles.....					448.	1068.		100
Rouen, Nantz, &c.....		1509.			2495.	933.	1050.	1850
Total to France.....	39968	61597	61832	39293	66821	68929	53005	55421
Amsterdam.....	2279.				4896.	7426.		1171
Rotterdam.....	2625.	626.				904.	881.	1400
Antwerp.....	7844.	6114.	2613.	3836.	5506.	2567.	1950	
Ghent.....		618.	1588.	2680.	2536.	3685.	1050.	3511
Genoa and Trieste.....	2922.	16211.	5988.	6645.	4373.	11479.	2889.	13853
Hamburg and Bremen.....			7825.		3093.	1110.	1796.	
Cuba and Barcelona.....	8057.	11328.	6929.	7836.	6485.	13950.	2914.	4494
Mexico and Stockholm.....	998.						S 284.	M 830
St. Petersburg.....	1801.				1613.	6212.		
China.....						2664.		
Flushing and a market.....	6155.							
Total to other For. ports..	11977	44361	29070	19774	26832	52936	12381	27209
New-York.....	41175.	37418.	48117.	45548.	46025.	57970.	84676.	55422
Boston.....	26378.	45391.	38815.	33496.	34197.	37883.	34082.	24198
Providence.....	14602.	13712.	11022.	12279.	13206.	11836.	13719.	8084
Philadelphia.....	2380.	2944.	1444.	3205.	2779.	4639.	6382.	5840
Baltimore.....	3190.	4977.	3574.	4661.	5168.	4357.	6329.	4922
New-Orleans.....	40016.	35164.	10805.	16431.	7163.	12125.	47577.	10687
Other American.....	1131.	1486.	4391.	1181.	7360.	3272.	2914.	6729
Total American.....	128872	141000	118168	116801	115898	131282	195379	115882
Grand Total.....	343036	537431	437219	307022	417633	521996	465205	481894

RECAPITULATION.

Great Britain.....	162219.	290383.	228179.	131154.	208082.	268849.	204140.	283382
France.....	39968.	61597.	61832.	39293.	66821.	68929.	53005.	55421
Other Foreign ports.....	11977.	44361.	29070.	19774.	26832.	52936.	12381.	27209
Total Foreign.....	214164	396341	319081	190221	301735	390714	269526	366014
U. States ports.....	128872	141090	118168	116801	115898	131282	195679	115882
Total.....	343036	537431	437249	307022	417633	521996	465205	481894

VIEW OF THE IMPORTS

Of the following Staple Articles, imported into the port of Mobile.

ARTICLES.	'49-'50	'48-'49	'47-'48	'46-'47	'45-'46	'44-'45
Bagging, assorted, pcs.....	25252..	29780..	28770..	12862..	28268..	20847
Bale Rope, coils.....	22265..	27654..	28033..	15690..	21995..	23689
Bacon, hhd.....	9183..	5981..	12623..	10542..	9930..	5076
Coffee, bags.....	21790..	22862..	24593..	30014..	26299..	23559
Candles, boxes.....						
Flour, bbls.....	67668..	51411..	38993..	32701..	46559..	68316
Grain—Corn, sacks.....	24314..	40146..	21801..	28970..	80157..	58285
Oats, sacks.....	11123..	17105..	13832..	10438..	9491..	12375
Hay, bales.....	19409..	17838..	8938..	10552..	13189..	17320
Lard, kegs.....	10582..	3842..	8250..	9453..	12280..	7999
Lime, bbls.....	18669..	15781..	12500..	9514..	9070..	7800

IMPORTS—CONTINUED.

ARTICLES.	'49-'50	'48-'49	'47-'48	'46-'47	'45-'46	'44-'45
Molasses, bbls.	17202..	12793..	17842..	12464..	14698..	10353
Potatoes—Irish, bbls.	17993..	17679..	18257..	18814..	18511..	19836
Pork, bbls.	7517..	5496..	12991..	8428..	10406..	2870
Rice, tcs.	1308..	1012..	924..	981..	1089..	1131
Sugar, hhds.	7082..	5667..	6822..	5789..	8057..	5480
Salt, sacks.	131108..	156107..	88898..	91365..	95901..	151801
Whiskey, bbls.	19077..	22991..	20914..	18309..	20695..	28314

The imports of most articles of provisions, and of some of the groceries, are short of the actual receipts, the manifests of cargoes frequently failing to specify the articles.

COTTON CROP OF SOUTH ALABAMA FOR TWENTY-EIGHT YEARS.

Years.	Bales.	An. Increase.	An. Decrease.	Years.	Bales.	An. Increase.	An. Decrease.
1823....	49061....	3638.....		1837....	232685....		4900
1824....	44924....		4137.....	1838....	309807....	77122....	
1825....	58283....	3359.....		1839....	251742....		58065
1826....	74379....	16096.....		1840....	445725....	193983....	
1827....	89779....	15400.....		1841....	317642....		128083
1828....	71155....		18624.....	1842....	318315....	673.....	
1829....	80329....	9174.....		1843....	481714....	163366....	
1830....	102684....	22355.....		1844....	467990....		13724
1831....	113075....	10391.....		1845....	517196....	49206....	
1832....	125605....	12530.....		1846....	421966....		95230
1833....	129366....	3761.....		1847....	323462....		98504
1834....	149513....	20147.....		1848....	440336....	116874....	
1835....	197847....	48334.....		1849....	518706....	78370....	
1836....	237590....	36745.....		1850....	350952....		167754

3.—NEW-ORLEANS TRADE—1849*-'50.

WESTERN PRODUCE.

Our limited space will only enable us to notice briefly a few of the leading articles under this head. A remarkable feature of the season is the very large falling off in the receipts of Flour, Wheat and Indian Corn. This has resulted mainly from deficient crops, but it is also attributable, in an important degree, to the increased facilities for reaching the Atlantic markets, through the canals and railroads which Northern enterprise is constantly multiplying and extending, and by which large quantities of produce are diverted from this point, where they have heretofore been directed for sale or transhipment. The arrivals of Flour from the West, since the first of September last, are only 591,986 bbls., against 1,013,177 barrels last year, and 1,617,675 barrels in 1846-'47; of Indian Corn equal to 2,750,000 bushels, against 4,785,000 bushels last year, and 7,065,000 bushels in 1846-'47; of Wheat equal to 110,000 bushels against 475,000 bushels last year, and 1,670,000 bushels in 1846-'47; of Corn Meal 5,187 bbls. against 12,097 barrels last year, and 88,159 barrels in 1846-'47. The total exports of Flour amount to 211,750 barrels, against 778,370 barrels last year. Of this quantity 5,066 barrels were shipped to Great Britain, 22,365 to the West Indies, &c., and the remainder to coastwise ports. Of Indian Corn, the total exports are equal to about 1,060,000 bushels, against 3,662,000 last year. Of this quantity 715,000 bushels have been shipped to Great Britain and Ireland, 75,000 to the West Indies, &c., and the remainder to coastwise ports. Of the small quantity of Wheat only a few hundred bushels have been exported to Great Britain, the greater portion having been taken for our city flour mills, or for "seed wheat," in Alabama and Georgia, where the crops last year were almost wholly destroyed by the remarkable frost of April. The annexed table, the items of which we take from the "New-York Shipping List," shows a very

* Continued from November Number.

large decrease in the exports of Breadstuffs from this country to Great Britain and Ireland, as compared with last year, the period being from September to August in each year :

	1849-'50.	1848-'49.
Flour.....barrels...	392,742	1,056,431
Corn Meal.....“.....	6,086	81,314
Wheat.....bushels.....	432,939	1,077,585
Corn.....“.....	4,813,373	12,536,758

The very large falling off in the receipts at this port has produced a considerably higher range of prices than was realized last year, notwithstanding the very limited amount taken for export. The market generally was characterized by great steadiness up to the month of June, when a light stock caused so large an advance in prices, that some parties in the Eastern cities were tempted to make shipments here, doubtless with a hope of profit. The markets of the West, however, happened to be somewhat more available for supply, and we are under the impression that the imports from the East could not have yielded very satisfactory returns. We have no space to follow the market in its fluctuations, and must content ourselves with stating that the lowest point for Ohio, &c., was in July and August, (\$4.00,) and the highest in June, (\$7.75.) The highest and lowest points for extra St. Louis, &c., were \$5 in August, and \$8.75 in June. The extremes for Indian Corn have been 40 c. per bushel in December, and 85 c. in portions of April, May, June and July. Of Wheat, only two or three limited sales took place during the season, and these were at a range of 70 a 90 c. per bushel. Nearly the whole of the comparatively small quantity received was for the use of the city mills, or to go forward. We are pleased to notice that the grain crops of the West are declared to be unusually abundant, and we hope to see a large increase of supplies at this point. In Pork and Beef the transactions have been large, the quantity received, in all packages and in bulk, being about equal to the receipts of last year, and the average of prices has been about the same, though the extremes have not been as great. The lowest point for Pork was in November, when Mess was quoted at \$8.37½ a \$8.50, and Prime \$7.37½ a \$7.50. The highest point was in July, when Mess attained to \$12, and Prime to \$9.75 per barrel. In Beef, the range has been between \$10 and \$15 per barrel for Mess, and \$6.50 and \$13 for Prime—the highest in September and the lowest in December. The supply of Lard has been somewhat larger than last year, but the demand has continued generally good, especially for export, and with less fluctuation the average of prices has been nearly equal to that of last year. The extremes have been 5 to 8 cents per lb., the lowest rate having been reached at several periods during the year, but the highest only in the month of June. The total exports (all packages being reduced to kegs) are equal to 1,554,849 kegs, against 1,249,691 kegs last year. Of this quantity 696,259 kegs were exported to foreign ports, against 381,996 kegs last year, Great Britain having taken 425,830 kegs against 196,631 kegs last year.

LEAD.

The course of trade in this article has undergone a marked change within a few years past. For several years past the product of the mines greatly exceeded the home demand for consumption, and considerable exports were made to Europe, particularly to France. In 1845-'46 the product was greatest, our receipts at this port being 785,000 pigs, and this was also the season of the largest foreign export, the amount reaching 175,000 pigs. The average price that year was about \$3.50 per 100 pounds. Since then there has been a rapid falling off in the product, so far as shown by the receipts here, while at the same time the home consumption has increased, until, instead of being exporters, we have not only absorbed the whole product of our own mines, but in turn have become large importers from Europe. We have no data to show the exact amount of foreign Lead imported into the Northern ports this season, but from the best information we can gather, we presume that it does not fall short of 200,000 pigs. The receipts at this port since the first of September, are 415,400 pigs, against 508,557 pigs during same period last year, and the exports are 410,146 pigs, all of

which has been for Northern ports, except 451 pigs to Yucatan and 1,000 to Havre. In regard to the course of the market, we have to remark that, as has been the case for one or two previous years, only a very small proportion of the receipts has changed hands here, the great bulk being merely in transit to Northern ports. Occasional sales have taken place, however, and the extreme prices of the season have been \$3,87½ per 100 lbs. in December, and \$5 in April.

HEMP.

In our last annual remarks upon this article, we stated that the accounts from the West respecting the growing crops were favorable, and that there was likely to be an increase in the shipments to the Atlantic markets. The result is that the receipts are nearly double those of last year, being 34,792 bales since the first of September last, against 19,856 bales during same period in 1848-'49. Of this quantity very little was sold in this market, the great bulk having been forwarded to the Northern ports. In the few sales that took place the extreme range of prices was \$90 to \$140 per ton for dew-rotted, the highest in October and the lowest in June. The total exports since the first of September amount to 36,035 bales, as follows: for Liverpool 1,218, for New-York 23,845, Boston 7,663, Philadelphia 2,093, and Baltimore 1,216. The following table exhibits the comparative receipts and the average prices for a series of years:

	Bales.	Per Ton.
1842-'43	14,873	\$80 00
1843-'44	38,062	\$66 00
1844-'45	46,274	\$60 00
1845-'46	30,980	\$60 00
1846-'47	60,238	\$90 00
1847-'48	21,584	\$115 00
1848-'49	19,856	\$132 00
1849-'50	34,792	\$109 00

From our inquiries respecting the growing crop, there would seem to be no doubt that the supply will be materially short of that of last year, particularly in Kentucky, where the crop suffered greatly from long drought. In Missouri the promise is said to be better, but it is supposed there will be a lack of laborers in the cutting and preparing for market, owing to the extensive emigration to California.

COFFEE.

The operations during the past season in this leading article among our foreign imports, have been marked by some extraordinary features. The news of a large deficiency in the product of Brazil, and a consequent falling off in the imports into the United States, gave an early impulse to speculation, and prices gradually but steadily advanced from 6½ cents in July, 1849, up to 14½ cents in February last, when the stock in first and second hands was about 60,000 bags. This was the highest point of the market, and as speculators rested here, and as consumers bought very sparingly, while at the same time fresh imports almost daily added largely to the stock, (in the middle of March it was 98,000 bags,) a turn took place in the market, and the decline was much more rapid than the advance, the price in May having run down to 7½ cents. At this point consumers bought more freely, and speculators again came forward, which not only prevented a further depression, but caused a rapid recovery of a portion of the lost ground, the current rate at the close of June being 9½ cents per pound. Since then there have been but slight fluctuations, and the closing rates for Rio are 9½ a 9¾ cents per lb. The first cargo of the new crop arrived on the 18th of September, which was earlier than usual, and the greater portion was sold at 8½ a 9 cents per lb. The following statements show the imports, stocks, &c.:

Estimated stock out of grocers' hands, on 1st September, 1849, of	
all kinds	bags.....6,000
Imports direct from Rio de Janeiro	225,013
Cuba, Laguayra, &c.....	20,627 ——— 245,640
Received coastwise for sale, (estimated)	51,200
Making a supply of	bags.....302,840

Against a supply of 360,970 bags last year, or a decrease of 58,130 bags. In the direct imports from Rio there is a decrease, as compared with last year, of 74,116 bags, while in the imports from Cuba, Laguayra, &c., and coastwise for sale, there is an increase of 15,486 bags—making the actual deficiency in supply, as above, 58,630 bags. Of the direct imports there have been shipped to Europe and coastwise 5,286 bags, and the present stock of all kinds, out of grocers' hands, is estimated at 28,000 bags—showing that the quantity taken for the consumption of the West and South has been 269,554 bags, against 354,970 bags last year, or a decrease of 85,416 bags.

DIRECT IMPORTS OF COFFEE, SUGAR AND SALT.

	1849-'50.	1848-'49.	1847-'48.
Coffee, Havana.....bags	20,627	16,341	8,590
Coffee, Rio....."	225,013	299,129	239,371
Sugar, Havana.....boxes	18,843	14,775	12,574
Salt, Liverpool.....sacks	468,932	508,517	300,943
Salt, Turks Island, &c.....bush	583,183	249,001	361,184

AGRICULTURAL DEPARTMENT.

1.—PRODUCT AND CONSUMPTION OF SUGAR IN THE NEW WORLD.

The quantity of sugars on hand on the 1st of August, in the principal markets of the world, was only about one-half of that on hand at the same date in 1849. This deficit has created some surprise among those engaged in the trade; but a moment's reflection will show that a different state of things could hardly be expected, from the progress of population and consumption. The difference or deficiency does not proceed, as many no doubt suppose, from any great falling off in the production, or from short crops in any part of the world, but from the rapid increase of consumption in the United States and Great Britain. In 1840, England consumed two hundred thousand tons of sugar, and in 1849 this had increased to eight hundred and seventeen thousand tons, caused, principally, by the addition annually of four hundred thousand to the population of that country, and the low prices ruling part of that time. Up to 1846, prices ruled comparatively high; but since the passage of the law of that year, there has been a great reduction in prices, and an increased use of this necessary of life has been the consequence; but allowing only the same rate since these depressed prices, there are still ten thousand hogsheads, of one thousand pounds each, which are required every year more than the preceding one to supply her wants.

If the increase in the United States from births and emigration amounts, as may be presumed, to one million per annum, and the consumption be thirty-five pounds each person, including the vast amount of sweets manufactured in various ways, there would be a call for 35,000 hogsheads of similar size, to meet the demand, forming in the aggregate 45,000 casks of sugar more in 1850 than in 1849.

There is no country in which the crops have decidedly fallen off to any remarkable extent. Short they may have been, but not so much as to have caused the present advance in prices. The wants of an additional population have been left aside, although, in our opinion, quite sufficient to have produced the scarcity which extends itself all over the country.

In the present state of Cuba, it can hardly be expected that the island should produce more sugar in future than she now does; and the circumstances remaining the same, she must in a few years feel the want of laborers, as it is said that the cholera has carried off 25,000 slaves. It is fair to conclude that, with the friendly feeling which now exists between Spain and England, the British ministry have eagerly seized the opportunity to press the extinction of the slave trade upon the Cabinet of Madrid, which could so easily be effected with an expected naval force of upwards of twenty vessels of war.

In Porto Rico years have elapsed since any importations have occurred from Africa, nor is there any deficiency of field labor. The free and white population amounts to far beyond 500,000, while the slaves do not exceed 47,000. This, while adding to the security of property, places at his disposal as much free aid as the planter desires, at very moderate wages.—*N. Y. Herald.*

2—COTTON GROWING FACILITIES IN CEYLON.

A communication from Badula, in Ceylon, dated 8th July, gives the following sketch of the cotton growing facilities there :

"I have delayed acknowledging receipt of your kind letter of 18th March, hoping to have sent you samples of the various qualities of cotton grown in the island, but at this season these are rather difficult to be got, and I must defer sending them till next or following mail. So little is known of the productions of this island at home, that, I dare say, I may as well begin by telling you that the natives have cultivated cotton from time immemorial, but the production has been barely sufficient to supply the native manufacturer. It is grown over the greater part of the island—principally the northern and eastern portions of it. As to cultivation, it gets none, being sown by the natives along with their grain crops, and receives no care or attention; they simply content themselves with plucking the crops as they come to maturity. Samples of a superior quality from Bourbon seed have been raised at Jaffna and Batticalou, but the cultivation was abandoned, and it was found to interfere with that of the cocoa-nut tree. A parcel raised at Jaffna, sent home some years ago, sold for, I believe, 6d per lb.; and a sample I grew at Batticalou was valued in Liverpool at the same price. Mr. Fennie, one of the American cotton planters, who is in the service of the East India Company, with a view to the improvement of the production in Hindostan, and who some time ago visited this island, says, that in every essential—in soil, temperature, and climate—this island is calculated to produce cotton equal in quality and cheaper in price than that of the United States. His words are—'I am of opinion, from what I saw of this climate and soil, that Ceylon will produce the article of cotton equally well—and, when the comparatively small amount of capital required is considered, I doubt not it may even produce the article cheaper than we can in America, where a large sum must be laid out at once for labor, and where the expense of food and clothing is much greater than the imported labor of Ceylon costs, besides the risk of losing the laborers by death after they are purchased.' If any of your friends should think of doing anything with cotton cultivation here, I shall be happy to give them every assistance. I have lands of my own well adapted for its cultivation; and I have no doubt government would be disposed to give every facility for acquiring lands for such a purpose. I believe that more than one-half the island is, by soil and climate, adapted for it; so that there is field enough, the island containing about 24,700 square miles, with a population of only 1,500,000. One great advantage of this island for carrying on cotton cultivation with English capital would be the facilities for obtaining both land and labor cheaply and easily. The former cannot be obtained in Hindostan, where there is a population, at anything like a reasonable price, as there is no unoccupied land, and the natives devoting their fields in the first place to the cultivation of grain, will on no account allow any other cultivation to interfere with that which supplies them food; so that it is only to a comparatively small extent that they cultivate cotton, indigo, or other produce for sale, to enable them to purchase a few superfluities. Now, where plenty of land is to be got, there is no population, or the soil and climate are also unpropitious; and the inhabitants will not emigrate from the rich and over-populated grain districts, to work for a less rate of pay than they can obtain in Ceylon or Mauritius; neither will they cultivate cotton any more than sugar or indigo, unless they obtain advances before even the land is ploughed; but in no tropical country can any dependence be placed by European capitalists on the indigenous population, for steady work; for, being all possessed of paddy fields and other lands, they will only work for European capitalists when their own fields do not require their labor. From what I have myself seen—and I believe it is generally admitted—both soil and climate of Ceylon are superior to that of India; whilst from the facility of its

communication with China and the east coast of Africa, it possesses the advantage of obtaining cheap and abundant supplies of labor from those countries, as well as from India, from which they emigrate in great numbers, and can at all times be had to work for 15s. to 18s. per month."

3—PRODUCTION OF COTTON IN JAMAICA.

I think I may announce to you now, that cotton cultivation has been commenced with an earnestness from which I augur great success. The press is almost universal in advocating the propriety of it. A company has been formed, including among its members the Chief Justice, with a capital of £2,000, in order to test the question. I have little doubt of a favorable result. A newspaper on the north side of the island,—the *Trelawny*,—whose proprietor speaks from practical experience, stoutly asserts, notwithstanding counter statements have been made, that the article can be produced ready for shipment at two pence per pound, and we have two crops a year, whilst, I believe, in the States they have but one. There is now here a gentleman from Georgia, who is said to understand well the cultivation of the cotton plant, and he has readily afforded information wherever it is sought of him. His name is Williams. The encouragement given to the undertaking by the British press is not without its beneficial effect.

4.—IMPROVED SUGAR PROCESS.

RESULTS OF EMANCIPATION IN WEST INDIES; REMEDIES, &c. &c.

We made the acquaintance last summer in New-York, of Emanuel David, a citizen of France, who has been engaged for eighteen years in the culture of beet sugar, and for eight years was employed as manager of a sugar estate in Venezuela. Mr. Davy claims to have made an important discovery, tending materially to diminish the quantity of labor required in this branch of industry, and if he could achieve anything like his promises, would bring about a material revolution. For our own part, we are always disposed to doubt in regard to these great discoveries, but it would at the same time be very unphilosophical not to give them a patient hearing.

We therefore publish the following note which he has addressed to us, with the remark, that the author may be found in New-York; that he proposes soon to take patents for his discovery, and to publish a work, in preparation, upon the culture and manufacture of sugar from the cane and the beet. He also desires to test his system in actual practice, if capital and facilities be furnished him:

To J. D. B. De Bow, Esq.—

The abolition of slavery in many colonies of the West Indies, has affected, in a very serious manner, the interests of those who are engaged in the culture and in the manufacture of the cane sugar.

The British Government took the lead in this movement; influenced not so much by considerations of humanity, as by motives of interest; purposing eventually to monopolize in the East India colonies the culture and the manufacture of the sugar.

The abolition of slavery in the British islands may be considered as a mere matter of figures. Great Britain viewed it with reference to nothing but her cash-book. She considered that the indemnity to be paid to the planter would be thousands of pounds—that the interests of her East Indian dependencies would be benefited thousands of pounds, and this would have thousands in favor of the East Indies. She said: let the law for the abolition of slavery, for the emancipation of eight hundred thousand slaves in West Indies, be passed!

The following remarks are applicable to the colonies generally, but especially to those of Spain, where the sugar cane is cultivated, and where slavery yet exists:

In these colonies, enjoying a fine climate and a fruitful soil, two things oppose the introduction of improved methods as well for the culture as for the manufacture of sugar—the first is, that the planters, instead of residing on their estates, spend their life in the cities; the other is, that the administration of the estates is left altogether in the hands of the major-domos or overseers, who are generally incrustated into prejudices; zealous partisans of the *statu quo*, they follow always in the hackneyed path, and constantly oppose the least change in the accustomed mode of procedure, for fear that they shall be under the necessity of making themselves acquainted with those new processes, which will not at all increase their yearly pay. One is at a loss to conceive, how it is that the improved methods of cultivating and of fabricating sugar have not found their way into all the plantations of the West Indies. However, the benefits which the planter would receive, would be immense; for, by using improved instruments, better processes for cultivating sugar cane and for manufacturing cane juice, they must make great saving of manual labor and greatly reduce the number of their hands. These new methods would enable them to carry on their present operations with a very few hands, and give an opportunity for selling the superabundance, or they might keep their present number, and increase the operations of them.

What remedies can be found for the wounds, which sap the very lifeblood of the colonies? The principal remedies will be these: 1st. The residence of the planters on their estates: 2d. The dispensing with the office of major-domo.

This would be only to follow the example of the manufacturers of beet root in Europe, who are, at the same time, farmers, and who reside on their estates, and direct themselves the work without the aid of a manager, who only increases the expense without profit. The residence of the planters on their domains would familiarize them with the modes of culture and of manufacture pursued, and render them enlightened. And whenever any improved method of culture or of manufacture should be brought to their notice, they would not oppose its introduction into their estates; but, on the other hand, stimulated by the desire of increasing their resources, they would make trial of it, without having to ask the approval of the major-domo. The suppression of the office of major-domo would have also the happy effect of introducing beneficial changes in the management of sugar plantations. The expenses would be diminished at least eight hundred dollars, the wages of the major-domo, and in this event the planters would be under the necessity of becoming themselves practical farmers and manufacturers.

In certain countries of the temperate zone, the emancipation of the slaves has had an effect, in reference to the culture of sugar, different from that which it has had in the torrid regions; in the former, the production can be sufficiently increased; in the latter, the result is different. The working all day in the sun is such, that no European could endure it. The negro is unwilling to engage in such work, where the fertility of the soil could supply all the wants of his family with only two hours' exertion on his part per day. The emancipated negro works ordinarily one or two hours early in the morning, and nothing can induce him to work any more; hence, habits of idleness; hence, unrestrained excesses; hence, vagabondism and beggary; not because there is no opportunity for getting work, but because they have no disposition to work; hence, coalitions, although coalitions enter but little into the ideas of the free negroes, and no longer promote the interests of the Creoles; hence, incendiaries; hence, violations of rights of property. These are necessary consequences. The negro population, which, but yesterday, was out of the pale of civilization, has been to-day in some sort brought into the human society, but without preparatory education.

The emancipated negro knows nothing of what constitutes true liberty; he knows nothing of its starting point, or of its end. The negro, liberated without previous training, is like a prisoner, who has been for twenty years in his cell, and who regaining his liberty, is now brought out into the light of day, and who not only has no pleasure in the light, but runs great risk of losing the use of his eyes altogether. In this case, the blindness is physical; in regard to the negro, it is a moral blindness. The fault is not all the slave's, but in part belongs to the mother country.

Before emancipation, what did the mother country say! She said: the negroes are not prepared for liberty. And when this preparation for liberty was urged upon the government, it was violently resisted. They refused to adopt measures, whereby the slaves could have been gradually accustomed to the duties, which would result from an entire emancipation. The government is therefore responsible for the evils, which she took no measures to prevent, and which she has thus practically brought upon the islands.

The labor of the free negro is more capricious, less regular, more costly, and, would one believe it, performed with less intelligence. The time spent generally in all the operations of the culture of the sugar-cane, but especially in planting and harvesting it, is longer. The planter is under the necessity of paying every day, free laborers, with ready money, and, indeed, as it is said vulgarly, of keeping always his hand in his purse. In this state of affairs, he renders good service to the sugar interest, who shall introduce improved, economical, and advantageous methods. But, before particularizing what are those new methods, it is necessary to premise some generalities needed for understanding the matter. Among the operations, which concern the culture of sugar-cane, none perhaps needs improvement so much, and none is more unimproved, in all parts of the world, where the sugar-cane is cultivated, than the weeding of the cane plants. This question receives the greater importance from the fact, that slaves are employed more or less in all countries where the sugar-cane is cultivated, and experience shows, that weeding employs about one-third of the hands of a plantation, or, speaking in the colonial language, one-third of the *esclavitude*. Thus, on a plantation where there are three hundred hands, one hundred usually are employed in the weeding of the cane during the whole term of its growth. It appears, then, that the expenses of weeding are considerable, and deserve to fix the attention of planters. The expenses to which the weeding gives rise, result proportionately from the system of planting the cane. To the planting of the cane, therefore, all attention should be given; for it is the pivot on which all the operations of sugar-cane culture turns. Therefore, to adopt an economical mode of planting, is to secure an economical method of weeding the plant. Such an economical method of planting has been found. It does not present great difficulties, but only requires care. Its results are very efficient, and its benefits are considerable. By means of the method of planting, and of the instruments here referred to, one man, with one or two horses properly trained, can do the work of thirty hands at least, taking the tasks (*tareas*) usual in the colonies, as the standard of day's work. Consequently three slaves could, with this method, do the work of one hundred slaves. This economical system allows the planters either to enlarge their plantations proportionately, or sell the slaves that would not be needed any longer. In the colonies, where slavery has been abolished, the planter will be put, by this system, in a very satisfactory position, since they would be free from the necessity of paying the day laborers obtained from the neighborhood, since this work would be done by ploughmen on the plantation, paid by the year. This system presents the advantage of giving to the cane-plant, during its growth, all necessary weeding at the time when it is needed, a thing which, according to my own observation, is rarely done, at present, in the greater part of the plantations. It may be proper to say, that this system will not at all injure the irrigation of the plants. The advantages of it are proportionate to the duration of the sugar-cane. Thus, in countries where, by reason of climate and of soil, the cane lives, with benefit, only two or three years, these advantages are proportionate; but they are greater in countries where canes live to ten, fifteen or even twenty years, without degenerating and diminishing.

The author of this new system possesses great experience in the culture and manufacture, not only of the sugar-cane, but also of the beet-root. He is willing to found a large rural establishment, in which the European method of culture could be joined with the tropical. This, amongst other things, would render the new soil mellow in a shorter time, and improve, therefore, the sugar-cane, also the cane-juice, and also the spirits that might be made. In this establishment there would be: first, the manufacturing of sugar; second, the construction of rural implements; third, another kind of manufacture, from which

the trash, as manure, would be conveyed of itself, and without expense, to the cane-fields. This last consideration is very important, because there is always on a plantation a considerable quantity of excellent manure, ready for immediate use. The bagass, in localities properly situated, could be made available for purposes far more profitable than fuel, and this, by means of modification in the mode of extracting the cane-juice, without changing however the cane-mill.

SONG OF THE CANE FIELDS.

We conclude our extracts from Dr. Grainger's Poem upon the Sugar Cane and West Indies, which could not have been otherwise than interesting to our readers.

THE VARIOUS AFRICAN TRIBES AND THEIR VIRTUES.

In mind and aptitude for useful toil,
The negroes differ—Muse, that difference sing.
Whether to wield the hoe, or guide the plough,
Or for domestic uses thou intend'st
The sunny *Lybian* from what clime they
spring,
It not imports, if youth and strength be theirs.
Yet those from *Congo's* wide extended plains,
Through which the long *Zaire* winds with crystal
stream,

Where lavish Nature sends indulgent forth
Fruits of high flavor, and spontaneous seeds
Of bland nutritious quality, ill bear
The toilsome field; but boast a docile mind,
And happiness of features. These, with care,
Be taught each nice mechanic art, or trained
To household offices; their ductile souls
With all thy care and all thy gold, repay.
But, if the labors of the field demand
Thy chief attention, and the ambrosial cane
Thou long'st to see, with spiry frequency,
shade

Many an acre—planter, choose the slave
Who sails from barren climes; where want
alone,

Offspring of rude necessity, compels
The sturdy native oft to plant the soil,
Or stem vast rivers for his daily food.
Such are the children of the golden coast;
Such the *papas*, of negroes far the best;
And such the numerous tribes that skirt the
shore

From rapid *Volta* to the distant *Rey*.
But, planter, from what coast soe'er they sail,
Buy not the old; they ever sullen prove:
With heartfelt anguish, they lament their
home;

They will not, cannot work; they never learn
Thy native language; they are prone to ails;
And oft by suicide their being end.
Must thou from *Afric* reinforce thy gang?—
Let health and youth their every sinew form;
Clear roll their ample eye, their tongue be red,
Broad swell their chest, their shoulders wide
expand,

Not prominent their belly; clean and strong
Their thighs and legs, in just proportion rise.
Such soon will brave the fervors of the clime;
And free from ails, that kill thy negro-train,
A useful servitude will long support.

Yet, if thine own, thy children's life be dear,
Buy not a *Cormantes*, though healthy, young.
Of breed too generous for the servile field,
They, born to freedom in their native land,
Choose death before dishonorable bonds;
Or, fired with vengeance, at the midnight hour,
Sudden they seize thine unsuspecting watch,
And thine own poniard bury in thy breast.

At home, the men, in many a sylvan realm,
Their rank tobacco, charm of sauntering minds,
From clayey tubes inhale; or, vacant beat
For prey the forest; or, in war's dread ranks,
Their country's foes affront; while, in the field,
Their wives plant rice, or yams, or lofty maize,
Fell hunger to repel. Be these thy choice;
They, hardy, with the labors of the cane
Soon grow familiar; while unusual toil,
And new severities, their husbands kill.

The slaves from *Minnah* are of stubborn
breed:
But, when the bill, or hammer, they affect,
They soon perfection reach. But fly, with care,
The *Moco* nation; they themselves destroy.

THE NEGRO'S CONSOLATION.

Nor negro, at thy destiny repine,
Though doom'd to toil from dawn to setting sun.
How far more pleasant is thy rural task
Than theirs who sweat, sequester'd from the
day,

In dark tartarean caves, sunk far beneath
The earth's dark surface; where sulphureous
flames,
Oft from their vapoury prisons bursting wild,
To dire explosion give the cavern'd deep,
And in dread ruin all its inmates whelm!—
Nor fateful only is the bursting flame;
The exhalations of the deep dug mine,
Though slow, shake from their wing as sure a
death.

With what afflicted severity of pain,
Hath the afflicted Muse, in Scotia, seen
The miner's rack'd, who toil for fatal lead!
What cramps, what palsies shake their feeble
limbs,

Who, on the margin of the rocky *Drave*,
Trace silver's fluent ore! Yet white men, these!
How far more happy ye, than those poor
slaves,

Who, whilom, under native, gracious chiefs,
Incas and emperors, long time enjoy'd
Mild government, with every sweet of life
In blissful climates! See them dragg'd in chains,
By proud insulting tyrants, to the mines
Which once they call'd their own, and then
despised!

See, in the mineral bosom of their land,
How hard they toil! how soon their youthful
limbs

Feel the decrepitude of age! how soon
Their teeth desert their sockets! and how soon
Shaking paralysis unstrings their frame!
Yet scarce, e'en then, are they allow'd to view
The glorious god of day, of whom they beg,

With earnest, hourly supplications, death;
Yet death slow comes, to torture them the more!

With these compared, ye sons of Afric say,
How far more happy is your lot! Bland health,
Of ardent eye, and limb robust, attends
Your custom'd labor; and, should sickness seize,
With what solicitude are ye not nursed!
Ye negroes, then, your pleasing task pursue,
And, by your toil, deserve your master's care.

When first your blacks are novel to the hoe,
Study their humors; some, soft soothing words;
Some, presents; and some, menaces subdue;
And some I've known, so sabborn is their kind,
Whom blows, alas, could win alone to toil.

KINDNESS TO SLAVES.

Howe'er insensate some may deem their
slaves,

Nor 'bove the bestial rank; far other thoughts
The Muse, soft daughter of humanity!
Will ever entertain. The Ethiop knows,
The Ethiop feels, when treated like a man;
Nor grudges, should necessity compel,
By day, by night, to labor for his lord.
Not less inhuman, than unthrifty those,
Who, half the year's rotation round the sun,
Deny subsistence to their laboring slaves.
But would'st thou see thy negro-train increase
Free from disorders, and thine acres clad
With groves of sugar, every weak dispense,
Of English beans, or Carolinian rice,
Jerne's beef, or Pennsylvanian flour;
Newfoundland cod, or herrings from the main,
That howls tempestuous round the Scotian isles.

Yet some there are so lazily inclined,
And so neglectful of their food, that thou,
Would'st thou preserve them from the jaws of
death,

Daily their wholesome viands must prepare;
With these let all the young, and childless old,
And all the morbid share; so Heaven will bless,
With manifold increase, thy costly care.
Suffice not this; to every slave assign
Some mountain ground; or, if waste, broken
land

To thee belong, that broken land divide.

This let them cultivate, one day, each week;
And there raise yams, and there cassada's root,
From a good demon's staff cassada sprang,
Tradition says, and Caribbees believe;
Which into three the white-robed genius broke,
And bade them plant, their hunger to repel.
There let Angola's bloomy bush supply,
For many a year, with wholesome pulse their
board.

There let the bonnavist, his fringed pods
Throw liberal o'er the prop; while ochra bears
Aloft his shiny pulp, and help disdains.
There let potatoes mantle o'er the ground,
Sweet as the cane-juice is the root they bear.
There, too, let eddas spring in order meet,
With Indian cale, and foodful caluloo:
While mint, thyme, balm, and Europe's coyer
herbs,

Shoot gladsome forth, nor reprobate the clime,

This tract secure, with hedges or of limes,
Or bushy citrons, or the shapely tree
That glows at once with aromatic blooms,
And golden fruit mature. To these be join'd
In comely neighborhood, the cotton bursts
On rocky soils. The coffee also plant:
White as the skin of Albion's lovely fair—
Are the thick, snowy, fragrant blooms it boasts:
Nor wilt thou, cocoa, thy rich pods refuse;
Though years, and heat, and moisture they
require,

Ere the stone grind them to the food of health.
Of thee, perhaps, and of thy various sorts,
And that kind, sheltering tree, thy mother
named.

With crimson flowerets prodigally graced,
In future times th' enraptured Muse may sing,
If public favor crown her present lay.

But let some ancient, faithful slave, erect
His shelter'd mansion near, and, with his dog,
His loaded gun and cutlass, guard the whole.
Else negro fugitives, who skulk mid rocks
And shrubby wilds, in bands will soon destroy
Thy laborer's honest wealth; their loss and
yours.

MISCELLANEOUS DEPARTMENT.

1.—OUACHITA, LOUISIANA—MONROE.

This is a village located on the banks of the Ouachita River, at a place which was originally a prairie, called "Prairie des Canots," entirely above the overflow to the highest waters within the memory of the "oldest inhabitant;" 450 miles from New-Orleans; population 1,500; seat of Justice of the parish of Ouachita. There is held each year one session of the Supreme Court of the State, beginning on the first Monday of October. A session of the District Court of the United States is held here once annually, beginning on the first Monday of December. Here is held the United States Land Office, where the lands north of Red River are to be entered. These advantages give the place some note aside from any other considerations. Glance your eye around and observe the delta, formed by Red River on the West, the Arkansas line, 33 deg. on the North, the Mississippi River on the East, and the confluence of the Red and Mississippi Rivers on the South, you perceive that Monroe is the most central town within the above area or delta. It is located, too, on the banks of a stream not surpassed for beauty of current or scenery of shores by any stream in the south-west, navigable 200 miles above Monroe, and down which the produce of South Arkansas is shipped, and by which steamers pass weekly in the business season. This renders this town easy of access to those who may wish to visit it, either for business or pleasure. Its central position will always command the Land office and judiciary within the boundary of the Ouachita delta. The lands on the Ouachita River, below Monroe, on the east side particularly, are an

alluvial formation. Growth—gum, cotton-wood, oak of different species, ash, box-alder, sycamore; undergrowth—dog-wood, pawpaw, grape and muscadine vines. The lands were covered with the Maison Rouge grant from a short distance below Monroe to the town of Columbia, on an average of three miles deep on both sides on the river. The Supreme Court of the United States last winter decided this grant to be invalid, and it is now a part of the public domain, with the exception of that which Gov. I. Johnson caused to be taken up for the State, as a portion of the 500,000 acres to which Louisiana was entitled under the act of distribution, and some private confirmations in the limits of this grant. Our Legislature have very justly made provision for these persons, who are settled on the lands located for the State, who had previously made *bona fide* purchases from the grantees; the residue will be in market as soon as the proper surveys and confirmations of location can be completed. The lands in the vicinity of Monroe are of good quality, though they do not run back so deep, the Lafourche overflow approaching the river at this point.

The lands on the Bayou de Siard, East of Monroe, are fine cotton lands; the front lands are generally occupied. But there are as good lands back, convenient to Monroe, yet in a state of nature, which could be bought at prices ranging from \$5 to \$10 per acre. There are some fine uplands still East of the Bayou de Siard, between it and Bœuf River, very desirable. The growth of these lands is pine and oak, principally; some scattering gum, hickory and walnut, in places. They produce remarkably well, and to a North Alabamian, Georgian, Tennessean, East Mississippian, or even the Florida parishes of this State, they would be considered *good* cotton lands.

The Bayou de Siard is a legitimate Bayou. At low-water it has two mouths, emptying into the Ouachita River and Bayou Bartholomew. When the Bartholomew rises sufficiently, the waters from her pour through the Siard; and at such times the Siard, if cleared out, would be navigable all round to the Ouachita for steamers capable of carrying 200 bales of cotton. This Siard, with the Bartholomew and Ouachita River, forms an island, upon which are situated some of the finest cotton plantations in Louisiana; and there is yet a great portion of the island untilled. Nowhere on it would the planter have to haul his crop more than twelve miles to a shipping point.—*N. O. Crescent.*

2.—SIDNEY SMITH ON MODERN PROGRESS.

It is of some importance at what period a man is born. A young man, alive at this period, hardly knows to what improvements of human life he has been introduced; and I bring before his notice the following eighteen changes, which have taken place in England since I began to breathe the breath of life—a period amounting to nearly seventy years. Gas was unknown; I groped my way about the streets of London, in all but the utter darkness of a twinkling oil lamp, under the protection of watchmen, in their climacteric, and exposed to every species of insult. I have been nine hours in sailing from Dover to Calais, before the invention of steam. It took me nine hours to go from Taunton to Bath, and now I can go in six hours from Taunton to London! In going from Taunton to Bath, I suffered between 10,000 and 12,000 severe contusions before stone-breaking Macadam was born. I paid £15 in a single year for repairs of carriage spring, on the pavement of London; and now I glide without noise or fracture on wooden pavements. I can walk, by the assistance of the police, from one end of London to the other, without molestation; or if tired, get into a cheap cab, instead of those cottages on wheels, which the hackney-coaches were at the beginning of my life. I had no umbrella. They were little used and very dear. There were no water-proof hats, and my hat has often been reduced by rains, to its primitive pulp. I could not keep my small clothes in their proper place, for braces were unknown. If I had the gout, there was no colchicum. If I was bilious, there was no calomel. If I was attacked by ague, there was no quinine. There were filthy coffee-houses instead of elegant clubs. Game could not be bought. Quarrels about uncommuted tithes were endless. The corruption of Parliament before reform, infamous. There were no banks to receive the savings of the poor. The poor laws were gradually sapping the vitals of the country. Whatever miseries I suffered I had no post, to whisk my complaints, for a single penny, to the remotest corners of the empire.

GALLERY OF INDUSTRY AND ENTERPRISE.

ILLUSTRATED WITH PORTRAITS.

No. I.—CHARLES T. JAMES, OF RHODE ISLAND.

It is our intention, in this series of papers and engravings, to present biographical sketches and portraits of such men as have made themselves prominent in the southern and western states, or in pursuits immediately connected with those states, for business activity, and wide and general enterprise tending to their common advancement and progress.

The Gallery will embrace merchants, agriculturists, manufacturers, mechanics, etc., as we may select them from time to time, or as they may be selected for us, should nothing interfere with the full execution of our plans. They will be taken from each of the states; and only such included as shall be, in the estimation of all, distinguished in the highest degree in their vocations.

It may well be inquired, if such a Gallery has not claims equally high, if not higher, than those of politicians, which have of late grown quite popular, and which are furnished monthly in the pages of the Whig and Democratic Reviews. The victories of the man of business, or the man of mechanism, over matter and circumstances, are as good as those of the legislative forum, and equally important to mankind.

In recording and perpetuating those victories, and in bringing their authors from comparative obscurity into broad day, shall we not be contributing our mite to the advancement of this great age of progress, at the same time that we are stimulating individual efforts, by inducing a high and laudable emulation, and offering the greatest reward to successful enterprise?

The name that we begin with is that of a man who, from the humble place of a mechanic, has raised himself to a high elevation, and won a reputation in an especial degree throughout all the southern states. Though not born within our limits, he has done so much in advancing and promoting our manufacturing industry, that we all know him,

and entertain for him the highest esteem and regard. That man we shall soon introduce to the reader.

There was a time, and it has not long since passed away, when mechanic arts were considered unworthy of the study or consideration of learned circles, but only suited to the ignorant and servile. As, however, civilization advanced, new wants and desires were created, which, being supplied, created others—dependent all of them on the ingenuity and industry of the mechanic, and the application of mechanical science. These gave an increased importance to the mechanic, and introduced a salutary change, which, though not yet perfected, has produced astonishing results upon society. However great the benefits conferred by this class of men in all times, their merits—except in a few cases extremely rare—have either been overlooked, or soon forgotten; whilst all panegyric has been reserved for the dreaming and speculative philosopher, whose mystic cant served rather to darken and corrupt the human mind,—the crafty politician, and his imperious master, active in their efforts to rivet the fetters of a cruel despotism,—and the warrior chief, terrible in battle, in dealing death and destruction around, and deluging fields with human blood. Thus, men who tasked all their energies to corrupt or destroy mankind, have found places for their names on the records of fame, while the name of the mechanic who has labored with untiring energy to benefit his species, has been suffered to go down into oblivion, “unhonored and unsung.” Too much of this spirit still remains, though the mechanic is gradually making his importance to be known, felt, and acknowledged; and paving a way upward for himself to the highest places of society.

Within the last hundred years, more than ever before, the world has been constrained to acknowledge, and history to record, the names and merits of men who have reared

noble monuments to themselves on the basis of the mechanic arts. Yet few of these, very few indeed, have been found in the ranks of the learned. By far the greater portion of those whose names stand out most prominent in the list, have been self-taught and self-made, and have raised themselves to eminence by the force of mechanical genius, and the merits of practical mechanical science. Among these we may notice particularly Hargreaves, the inventor of the spinning-jenny, and Arkwright, who converted it into the spinning-frame,—Whitney, the inventor of the cotton-gin,—Smeaton, the great civil engineer, whose works, and particularly his Eddystone Lighthouse, astonish the world,—Ferguson, the celebrated mechanic and mathematician,—Fulton, whose fame is identified with the success of steam navigation throughout the world,—Bramah, the inventor of the hydraulic press,—Godfrey, the inventor of what is falsely called Hadley's Quadrant,—Whittemore, who invented the machinery for making cards,—Watt and Evans, whose names will go down to posterity in connection with that wonder-working machine, the steam-engine,—and a host of others. On the whole, it is quite remarkable that professional science should have done so little for the mechanic arts. It follows in the footsteps of the practical school, and avails itself of the discoveries of practical men, but seldom leads the way. Most of the valuable and useful discoveries have been made by men who, making no pretensions to speculative science, have triumphed by the force of their native genius and practical energies. Among this class we place the man whose name heads this article.

CHARLES TILLINGHAST JAMES is now about forty-five years of age. He was born in the town of West Greenwich, in the state of Rhode Island. His father was a respectable farmer. Rather inclined to mechanics than to literary studies, he approached the years of manhood with but the rudiments of an English education; and is, emphatically, a self-educated and self-made man. Many persons consider him merely as a sound theoretical man, or at best, a practical manufacturer. This is a mistake. At the age of nineteen, he turned his attention to mechanics, with the determination to qualify himself for the prosecution of his undertaking by the study of books.

But soon becoming satisfied that he could obtain but little practical aid from them, he laid them aside, and determined to prepare himself by practice. He accordingly commenced as a practical working mechanic; and, step by step, proceeded through all the departments of the machine shop connected with the manufacture of cotton. By this method, Mr. James qualified himself not only to operate, but to build, with his own hands, any and every machine used in the cotton mill. Thus, and by the aid of the mathematical and mechanical sciences, for which he has an unusual aptness, and to which he has paid unremitting attention, he has been able to place himself at the head of his profession. Such was the position to which he had attained as early as the year 1836, or thereabouts, that he was presented with the honorary diploma of Master of Arts, from the Faculty of Brown University, in his native state.

Mr. James' style of work is peculiar to himself. With him it is original, and grows out of his practical knowledge of the business. He acknowledges no leader, and copies no model; and his mills are different in their general arrangement, and in many of their details, from any others in the United States. A scientific adaptation of every machine to every other machine, causing the whole to work in unison, without excess or deficiency in any one, produces complete harmony, and a perfect effect. This is the true secret why his mills do more and better work than others, at smaller cost. That they do better work is evident from the fact, that cloths made in them bear the highest value in the market, and have, in every case in which they have been exhibited at public fairs, in New-York, Philadelphia, and Boston, the latter city being the very focus of New England manufactures, borne off the palm; and a large number of medals has been awarded them, against all competition. That these cloths are made at smaller cost, published extracts from the books of the mills determine.

Mr. James, when his present contracts shall have been completed, will have put in operation a number of spindles considerably exceeding 300,000, being more than one-eighth of the entire number in the United States. In such extensive practical operations, with a mind ever on the alert to reme-

dy all deficiency, and to bring forward and adopt all improvements, as opportunity may occur,—the knowledge thus obtained must confer on him great advantages in the practice of his profession. On the other hand, he has been careful to keep himself, as far as practicable, thoroughly advised of the progress of the manufacturing business in Europe, and of the improvements made there; and to adopt such as were found to be of much practical utility. The course he has pursued has wrought, and is working, a great revolution in the manufacturing business, as respects motive power. A few persons in this country had, before he made the attempt, so far disregarded public opinion, as to undertake the manufacture of cotton by means of steam power. Most of these attempts proved abortive; and the supposition seemed to have been converted to a certainty, that cotton, to be manufactured at a profit in this country, must be taken to the water-fall. In the face of this almost universal conclusion, accompanied with the sneers and ridicule of some, and predictions of certain failure by others, Mr. James confidently became the advocate of steam power, and adopted it with complete success. Since that period he has erected and put in operation a considerable number of mills, which are driven by steam power; and which, by their doings, have fully substantiated his statements, that, for the reason that steam power may be had wherever wanted, as well as from its superiority in the manufacture of cotton, it is more beneficial to the manufacturer than water power, because it can be brought into connection with many local advantages which are unavailable to water power. The manufacture of cotton by steam is no longer an experiment in favorable locations. The business, by its means, is being extended to many sections in which it could not otherwise have been established, greatly to the benefit of such communities. All others in the United States combined, have not done as much as Mr. James, to bring about this result.

The engines used by Mr. James, as well as his mills, are originated by himself. Notwithstanding the great amount of business done by him—having generally in hand three, four, or five mills, in various parts of the country—every engine and boiler, all the

shafting and machinery, together with the buildings, foundations, and every thing else connected with the mills, are designed and drawn in his office, either by himself, or under his immediate direction. Of all these, duplicates are furnished to the workmen in the several departments, and the originals kept on file. To his acquaintance with machinery as a practical mechanic, his knowledge of the mathematical and mechanical sciences, the business of designing and planning, and carrying out his multifarious operations,—his long experience as a manufacturer,—with the ability, and the abundant means at hand, to compare results with regard to the working of the numerous mills constructed by him, the superiority of these mills is to be attributed. With such a mind as we have attempted to describe, he has devoted about twenty-six years of his life to close and unremitted application to business; and it is by no means strange that, under such circumstances, he should have reached a pre-eminent standing.

His mills are, as a general thing, equalled by no others in America. Among them we notice particularly, because it is his largest, the Naunkeag Steam Cotton Mill, at Salem, Mass. This mill has now about 33,000 spindles. It is a noble establishment, and is considered, even by foreign engineers who have viewed it, as one of the greatest specimens of mechanical engineering of the age, if not the greatest. Certainly there is nothing in the United States to compare with it, and to persons curious in such matters, a visit to it is worthy of a journey of a day or two.

Another very important fact should be here stated. In all the mills constructed by Mr. James, there is no one which has been left to his general management that has not, as far as management and the mill were concerned, proved successful. It is this fact, after all, which has conferred on him his reputation as a mill builder, and caused him to become known throughout the Union. It is this that has thrown into his hands a larger amount of business in the line of his profession than was ever done by any other man in this country.

The subject of our sketch has raised up to himself many opponents in New England, by a work published by him some time since, on the "CULTURE AND MANUFACTURE OF

COTTON AT THE SOUTH. That work, which in a great degree identified its author with Southern interests, was well calculated to produce the effect already partially realized, to open the eyes of the Southern people to the true state of the case, and to induce them to engage in the manufacture of their own staple, in competition with the manufacturers of the North; an enterprise which will, at no very distant period, add millions to Southern capital, and effect, in the cotton growing states, a great and salutary change. Some persons at the North were alarmed at the *expose* made in the work alluded to; and a reply was attempted, to impeach its veracity. But the rejoinder of Mr. James completely prostrated his reviewer, and silenced all cavil, besides substantiating the statements in his former work by numerous additional proofs, which no one yet has had the hardihood to question. He passed through the controversy unscathed; and, in his writings, has conferred a gift on the people of the South, which, if duly appreciated, and rightly applied, will prove to them of incalculable value.

Mr. James is a resident of the city of Providence, in his native state, in prosperous circumstances; having accumulated a handsome fortune by means of his mechanical ability and close application to business. He expressed the wish, long since, to relinquish the business of constructing cotton mills, and relieve himself from the great amount of labor, physical and mental, which the business imposes on him. But numerous and pressing applications, and the desire to benefit a class of people among the laboring population who stand in need of aid, under circumstances beyond their control, still keep him in the field.

NOTE.—This pamphlet of Mr. James's we have published in parts in our Review, during the past year, or at least the greater portion of it, and believe that it has effected much good. Mr. James, ten years ago, first opened our eyes to the importance of steam power in manufactories, in an article in the Charleston Mercury, and he has since taken a prominent part in promoting the manufactures of that city, being, as we learn, a stockholder to a large amount in the new mill now in construction there. He has

also an interest in the great cotton movements at Cannelton, Indiana, under our friend Hamilton Smith.

For the reader's instruction we copy the following passages from Mr. James's reply to the attacks of Mr. Lawrence:

MR. LAWRENCE'S DISINTERESTEDNESS.

Perhaps Mr. Lawrence wished to persuade the cotton planter to *promote the planter's interest*, no doubt—not to hazard his capital in the manufacturing business, with its small and diminishing profits, while the profits of cotton planting were large, and scarcely lessened at all in fifteen years; or, perhaps, as we subsequently have a few pretty plain hints, to embark his capital at the North, to aid in the upbuilding of northern manufacturing cities, in progress or in embryo, or to arrest the fall of certain mills, by purchasing their stocks, already 40 per cent. below par. Such may have been the case. Let others judge. It may be otherwise; but his frequent croakings about the hazards, the disasters, the failures, and, at best, the small profits of the manufacturing business, seem mightily like a sort of squinting toward the object of restraining the southern people from entering into competition with those of the North; or, that failing, to persuade them to embark their funds on board the new northern ship LAWRENCE, or some other craft, belonging in whole or in part to the same firm. Thus, with honeyed words, and abundant fraternal sympathy, he exhorts "*our friends*" at the South, in effect, either not to enter the manufacturing field at all, or, if they should, to invest their funds in northern mills. The substance is, they must pay freight and expenses on their own cotton to Lowell, and on their cloth back again; and leave at the North all the wealth created by labor, with the use of that capital, to build up northern towns and cities, equalling, once in two years at least, the amount of capital invested, with the exception of 8-9-10 per cent. per annum on its amount, in the way of dividends! How kind! how considerate!

STRUGGLES OF FACTORIES, NORTH AND SOUTH.

On looking back to the commencement of the cotton manufacturing business in New-England, and tracing its progress up to the present period, we shall find that our manufacturers have had difficulties to contend with, which the people of the South will not have to overcome. The business, at that period, was in its infancy, even in England. The machinery introduced here was very imperfect in form, finish, and operation. From that time to this, there has been kept up a continual race of improvement, which has rendered the expenditure of vast sums of money necessary to those who have kept up with the times; while

those who have refused to do so, have either broken themselves down by a spurious economy, or, at best, plodded on with little profit. The southern people will enter the field with all these improvements ready made to their hands; and, what is also of vast importance to them, the new and improved machinery can, at this day, be had at smaller cost than could have been that of former days, even but a few years since. Take, also, into account, the advantage of more than 20 per cent. on an average, which the manufacturers of the South will have over those of the North, in the cost of cotton at Lowell, and no good reason can be assigned why the former should not find the business more profitable than the latter. The difference in cost of cotton alone will pay more than 6 per cent. per annum on the capital employed, even if that difference were but one cent per pound. If the southern people cannot, under such circumstances, manufacture their cotton at a very handsome profit, certainly no other people can live by the business. We will now pay some attention to Mr. Lawrence's remarks on the comparative cost of steam and water-power.

CAUSE OF SOUTHERN FACTORIES.

For years, the northern press has been loud and frequent in recommendations to the South, to enter the field of enterprise, and manufacture her own staple; and, by way of encouragement, the success of New-England in the same branch of business, with the enhanced cost of the raw material, has been held out as an example. No fault, to my knowledge, has ever been found with that course. During the time, however, the manufacturers have uttered no note of encouragement, keeping a continual studied silence, when their business was prosperous, and only opening their lips to give utterance to doleful complaints, if occasionally a reverse occurred. Though myself a New-England man, I am also an American, and claim brotherhood with the American people, as a whole. It gives me pleasure to witness the prosperity of New-England; but, as an American citizen, it gives me equal pleasure to witness the prosperity of the whole country. Hence, in whatever has been written by me on the subject of manufactures at the South, my object has been to promote the interest of that section of our common country, without the most remote wish to injure that of any other. Business has never been sought by me there, nor ever will be. The pamphlet was written by the special request of southern men, and the abridgment was made also by request. The southern people wished for information on the subject of cotton manufactures, in order to know whether it was, or was not, prudent for them to engage in the business. They applied to me

to impart that information. The call was, after a time, responded to by me, and, as in duty bound, I gave them facts in an honest and truthful manner—facts that I have fully substantiated—and to establish which, on the basis of future operations, also, I hold myself pledged and bound to do. I have not only the *ability*, but the *means* to do it. Fully aware of the reluctance of northern manufacturers to have the details and results of their operations exposed, and wishing neither to excite their animosity, to alarm their cupidity, nor to injure their interests, I carefully abstained from all interference with their concerns, and merely stated the general results of the business in New-England, and what could be done, and what had been done, with a steam-mill of my own construction. And what has been the result? I have been attacked from all quarters, and in all forms—and why? Evidently because my statements were calculated to give encouragement to manufactures at the South, and to bring them into competition with those of the North. What other motives could have animated those who have assailed me? I pretended not, though I could have done it, to penetrate the veil hung over the doings of northern manufacturers. My effort was to show the southern people what *they might do*—not by reference to the doings of a number of pretended “first class mills,” but to others of my own building. Mr. Lawrence, and others, apparently alarmed at this, and fearing the result, entered the arena, and, by insinuations, innuendos, and broad statements, have endeavored to fix the falsehood upon me; not because I had misrepresented northern mills, or their products or profits, but because, as they would have it to be understood, I had made exaggerated statements relative to mills erected by me. And how have they succeeded? There is scarcely a statement made by them that has not been proved fallacious—not a statement of mine that has not been substantiated. Mr. Lawrence has driven me, in self-defence, to bring out facts, relative to which, if let alone, I should have been silent. If they have a heavy and injurious bearing on the northern manufacturing interest, those connected with it may thank their champion. I flatter myself that no one can tell me much that I do not know about the cotton manufacture in New-England, or the cost, condition, product, and profit and loss of a great number of New-England cotton mills, and among them, most of the twenty-six “first-class mills.” Thus far, they have just been touched on by me, and there it is my wish to leave them; yet much remains behind, that some would rather should be permitted to rest undisturbed. So shall it rest, unless farther provocation shall call it out.

LITERARY DEPARTMENT.

LYRICS OF THE PALMETTO.

BY A. J. REQUIER.

You have herewith two lyrics, which I desire to present in their legitimate connection. The "Farewell" was delivered by Mrs. Mowatt, the popular actress, before a large audience, composed of the Carolinian volunteers chiefly, a day or so previous to their departure for the seat of war, in the Charleston theatre, to which they had been invited by the then manager. The other lines were penned on the return of the companies—how, you, the country, and history know.

1.—FAREWELL.

<p>THE trumpet has sounded—the cry has gone forth On the waves of the East and the winds of the North; The camp-fire is kindled, the banner unfurled, Where battlements stretch and where billows are curled; For a foeman has risen to sting with his scorn The Eagle that flutters where Freedom was born; And the sword doomed to sleep where its laurels were won, Has burst from the scabbard to blaze in the sun!</p> <p>Hear ye a voice 'mid the clamor of war, That wakens the welkin and echoes afar? Hear ye a peal of rejoicing and pride, Where her cohorts are met and her armaments ride? 'Tis Columbia that calls from the land of the foe— 'Tis her sons who have answered and stricken the blow!</p> <p>Again wakes the cry o'er the strand and the sea— 'Tis the country now calls, Carolina, on thee; 'Tis thy country rehearsing thy valor of yore, When the bones of thy progeny whitened thy shore; When the death-tolling bell for thy patriot rung, And a hero was made while a martyr was hung; 'Tis her voice bids thee come with the steel and the targe, To stand at the onset and strike at the charge.</p> <p>Children of Freedom! the hour has come When your bosoms shall beat at the beat of the drum;</p>	<p>And noblest his nature who, scorning to yield, Is the first in the fray and the last on the field. What tho' danger forbiddingly frown on your path? The greater his prowess who heeds not its wrath; What tho' blood flow—a crimson and crimsoning tide? 'Tis the sea on whose surges his pinnacle must glide, Who, betrothed unto Glory, would win her for Bride! Remember the deeds that your sires have done, Remember the worship your sires have won, Remember the present must soon be the past, And strike like your sires—they struck to the last.</p> <p>Let your names be embalmed in the blood of your foes, Let their fortresses witness the weight of your blows, And each thicket and valley proclaim to your pride, Here a Moultrie has vanquished, or Marion died.</p> <p>The prayers of Beauty shall watch o'er ye now, Her myrtles shall blossom—a braid on your brow; And her tears shall be brighter, her blushes more sweet, To emblazon success or to soften defeat.</p> <p>Then gird on the shield and prepare for the strife, Tho' with danger 'tis fraught, yet with honor 'tis rife; And for good or for evil—for weal or for woe— With your hands on your swords put your feet on the foe!</p>
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2.—WELCOME!

Heroic remnants of a band,
Whom Glory calls her own,
Thrice-welcome to your native strand,
Diminished but unstrown!
The song—the shout—the trumpet's tongue,
Await ye far and nigh,
With streaming colors to the sun,
And cannon to the sky.

By every great and glorious deed
That glistens in the past;
By every name, in hour of need,
That struggled to the last;
By patriots dead—by life-blood shed—
By monumental plain—
By every beam on glory's bed,
Thrice-welcome back again!

Ye left us with enkindled eyes,
Whose heart-inflaming fires
Told ye should bear, thro' earth and skies,
The spirits of your sires;
Ye left us in obscurity,
But to return in light;

Ye went as shades of evening fly,
To come like stars of night.

Immortal band! that never quailed
When loudest roared the fight,
But fiercest fought when most assailed,
Nor yielded left nor right;
For every blow ye nobly dealt,
For every blow ye bore,
For every thrill your bosoms felt,
Thrice-welcome to our shore!

Thrice-welcome! 'tis the mother's cry;
Thrice-welcome! 'tis the tear
That mirrors rapture in the eye
Where meet the brave and fair;
Thrice-welcome! those who nobly sought
For fame, and dared to find;
The rays their valiant deeds have caught
Leave brighter yet behind.

For those who fell—a saintly prayer!
For those who live—a smile;
The banquet-song—the feast—the cheer—
The column and the pile.

EDITORIAL NOTICES.

We regret to be compelled to omit notices of a large number of books, which have been sent us by publishers, but which will all receive our attention in the next number. We can only enumerate some of them now.

1. FROM HARPER AND BROTHERS.

Fowler's English Language, Elements and Forms.—Life and Letters, by Thomas Campbell, 2 vols.—Sydney Smith's Moral Philosophy.—New Monthly Magazine, for November.—Autobiography of Leigh Hunt, etc., etc.

2. FROM BAKER AND SCRIBNER, NEW-YORK.

Milton's Paradise Lost.—The Fathers of the Desert.—Christianity Revived in the East.—Willis' Life, Here and There.—The Reign of Isabella of Spain.—Hooker's Medical Delusions, etc., etc.

3. FROM PHILLIPS, SAMPSON AND CO., BOSTON.
Gems of Beauty.—Friendship's Offering.—The Rebel, or Boston before the Revolution.—Carlyle's Latter Day Pamphlets.—Coleman's European Agriculture, etc.

4. FROM THE AUTHOR.

Diseases, etc., of the Valley of the Mississippi and the Lakes, by Dr. Drake. This is a very large and invaluable volume, and we have in preparation an elaborate review of it for our pages.

5. FROM FREEMAN HUNT.

Hunt's Merchant's Magazine, 23 vols. It is impossible for us to do justice to this work now, though our intention is, at a very early day, to present an analysis of its leading valuable features, with the hope of promoting its more extensive circulation in our limits.

Literary World.—New-York. We are indebted to the Editors for some of the bound volumes, and have prepared a notice which must be postponed to our next. Meanwhile, we present, in another place, the *Prospectus* of this work, and urge its encouragement in all the literary circles of the South.

MONTGOMERY'S PATENT STEAM BOILER.

WE would call attention to the advertisement in another place, of this improved boiler, which combines the advantages of a very great economy in fuel, and reduction in space occupied. One of these boilers has been put up on the plantation of Genl. Taylor, and gave great satisfaction; and the Secretary of the Navy, after all proper tests, has made a most favorable report upon its merits. The patentees are now building two sets of the boilers for Government steamers, and have just completed those for the new propeller steam-ship Union, which we had the opportunity of personally inspecting ourselves last summer, in New-York. The first trial resulted to the satisfaction of every one; and it is impossible to discover the very limited space they occupy, in comparison with all other boilers, without being struck with their great merit for marine purposes. The saving in fuel is equally striking. The two engines in the Union have 34 inch cylinders, 34 inch stroke, 40 lbs. pressure, 60 revolutions, 14 miles an hour. The boilers are 19 feet long, 5 feet 9 inches wide, 10 feet high. The Union is of 800 tons, was built in Philadelphia for the Pacific trade, and is the fastest propeller afloat.

TO THE PLANTERS OF THE SOUTH. ADVERTISING AGENCY.

It is proposed, in order to enhance as much as possible the value of the *REVIEW*, which has attained a circulation as broad as the whole planting interest of the South, to occupy a few pages at the end of each num-

ber, in a small, neat type, with notifications of such plantations or estates as may be offered for sale, or in exchange, or are wanted.

Planters will at once be struck with the merits of this plan, as by no other mode of advertising can so great a number in their own pursuit be reached. Local papers, in which so many hundreds of these announcements are now made, have necessarily a restricted circulation,—whilst the *REVIEW* reaches throughout the Southern, Middle and Western States.

The plan proposed is that upon which the *British Colonial Magazine* is conducted, with a view to the plantations of that empire; and it would add no little to the value of the *REVIEW*, if the planter could at all times find in it a list of the estates, etc., in the market, and their prices.

Terms of announcement will be moderate, according to space occupied, and length of time, as will be agreed upon. If names are not made public, and sales are effected through the agents or correspondencies of the Office, a small per centage will be charged. Where wood-cuts are required to represent improvements, they will be furnished at small expense.

Address "OFFICE DE BOW'S REVIEW,"
New-Orleans, La.

TO OUR SUBSCRIBERS.

WE enclose bills in the present number to all our subscribers, and trust that, in our largely increased expenditure, there will be prompt remittances, which shall be as promptly acknowledged on the back of the *REVIEW*. Enclose, *by Mail*, to our address.

We hope that, with all our pains, our subscription list will greatly increase the present winter. The Editor, having been absent during the summer in consequence of ill health, will have resumed his post before the receipt of this number.

J. MONTGOMERY'S PATENT STEAM BOILER.

THE peculiar merits of this boiler are its great economy of fuel, weight and space occupied. But for a more perfect understanding of its merits, and to obviate some supposed disadvantages, it may not be improper to enter into further detail.

The reason why there is great economy of fuel is, that the products of combustion are more perfectly robbed of caloric before passing into the smoke stack. This is effected partly by the arrangement of the furnace, which is surrounded by a water space, but more effectually by the passage of the gases of combustion, around and in contact with a system of vertical tubes, first about their upper end and then the lower, by which means a large amount of fire surface is exposed, this being at the same time, of comparatively thin metal, that readily transmits the caloric to the water. By this arrangement also, a strong ascending current is produced in the tubes and a descending one by the water spaces on the sides and back of the boiler when it is comparatively cool. This circulation of the water constitutes a main feature of its merits, and which is more perfectly attained than was ever before deemed possible, while it facilitates the disengagement of steam near the surface of the water, a fact that is known to be the greatest safeguard against foaming. This constant circulation, together with the fact that the bottom of the boiler is *not* a fire surface, causes the ready deposit on the bottom of all sedimentary matter that would form scale or incrustation, and where it can be blown out at pleasure. Experience proves that *no* scale or incrustation is formed on the fire surfaces of this boiler; this is a quality which all engineers can readily comprehend as tending essentially to its *durability, efficiency and safety*. Some engineers, before trial, have suggested that this boiler might get out of repair; and if so, would be difficult to remedy. It is natural that such might be the opinion of any one upon an untried experiment. *But* this is *no* experiment. Several boilers that have been in constant use for two years have required *no* repairs, and should they require any, from a defect in material or construction, all parts of it can be got at with the greatest facility. Economy in the generation of steam is a great desideratum for all engines, but in addition to a saving of mere *cost* of fuel, there is, for marine service, the very important one of weight and space, not only as regards the boiler itself, but also that occupied by the requisite fuel for a given service. These are too obvious to dwell upon when speaking to an intelligent mind.

Office, New-York Agency, 36 Broadway.

METALLIC OR VULCANIZED RUBBER GOODS, MADE UNDER GOODYEAR'S PATENT.

THE UNION INDIA RUBBER COMPANY, OF NEW-YORK,

HAVE on hand, and will continue to keep for sale, the largest and most complete assortment of

Goodyear's Patent Metallic or Vulcanized Rubber Goods,

Ever offered in this country, comprising over 400 different articles, among which are a great many made to meet the wants of the South and West, and are warranted to stand the Climate.

CONSISTING IN PART OF

Coats, Cloaks and Capes, Spanish Ponchos or Serapis, Leggings and Overalls, Wading Boots, Caps, and Storm Hats, Saddle Bags and Wallets, Crumb Cloths, Camp Blankets, Tents, Drinking Cups, Tarpaulins, Hammocks, Beds, Pillows, Cushions, Boat Floats, Portable Boats, Fire Buckets, Pails, Water Bottles, Table Covers, Piano Forte Covers, Packing Bags, Syringes, Breast Pumps, Knapp's Patent Cow Milker, Grain Bags, Traveling Bags, Boots and Shoes, Machine Belting, Steam Packing, Gloves and Mittens, Tobacco Wallets, Balls, Elastic Bands, Dolls, &c., &c.

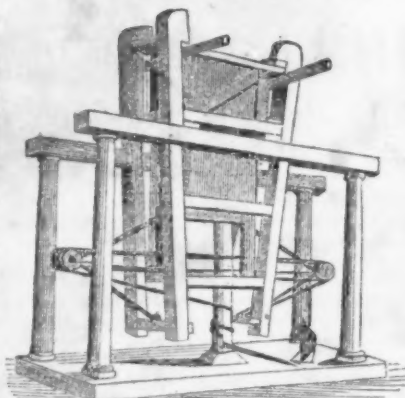
SOUTHERN AND WESTERN MERCHANTS will find many articles in the above stock which are well adapted to their trade, and which they will find it for their interest to keep for sale.

Warehouse, 19 Nassau-Street, New-York.

All orders for goods will be executed with fidelity and dispatch. Orders for goods to be made expressly, should be accompanied with drawings and full descriptions.

M'Comb's Labor-Saving Press, Patented Feb. 27, 1849.

THIS Press has proved to be unprecedentedly successful as to speed, ease, and convenience. Its case is such that less than half a horse-power is required to run five hundred pounds of cotton up to twenty-two inches. Its speed is such that six hands can make fifty bales in a day, and ordinary work of five hands is three bales to the hour, and less than one hour's work of the horse is necessary to make fifty bales. Its convenience is such that hands never have cotton thrown into the box overhead, nor ever have their heads within the box, consequently it is much less oppressive to hands than ANY OTHER PRESS.



Its durability will probably be ten times that of any other PRESS, and it is adapted to almost any gin house. The subscriber is prepared to take orders for this press, to be erected on the plantation—the planter furnishing all wood material on the spot, and assistance of two servant men to assist whilst the work is doing, and board hands and horses, and paying freight on iron, at the following rates:

For a No. 1 Press, which has solid iron driven, \$275 00.

No. 2 Press, which has all iron joints and wooden drivers, \$250 00.

No. 3 Press, which has iron toggle or elbow joint, and works in wood at top and bottom, \$200 00.
No. 4 Press, which has iron bearings at toggle joint, and works in wood at top and bottom, \$185 00.
These prices include the irons, nails, ropes, and wood-work. He is also prepared to furnish the iron, nails, &c., not including rope, at the following rates:—

For No. 1 irons, including right to use and working plan, \$150 00; No. 2, \$125 00; No. 3, \$85 00; No. 4, \$75 00. Individual rights, (with accurately drawn working plans, by which any good workman can erect the press,) at \$40 00 each.

The number has reference to the character or kind of irons, and not to the size, ease, speed, or convenience, and the comparative durability is yet to be determined, as the oldest press of this kind, which is No. 4, has worked on only three crops. The general opinion is that either number will last ten times as long as even the iron screw.

Having made arrangements for the manufacture and shipment of these PRESSES complete, with a view to supplying the increasing demand, they will be furnished at a convenient point for shipment at the same price that is charged for them on the plantation, the purchaser paying freight and charges. This enables the planter to get his PRESS without trouble, and at a cost of perhaps not more than \$25 more outlay, in lieu of which he saves the labor of getting timber, box, and door stuff, board of hands, &c., and gets a machine made of better material than it is convenient to get usually on plantations. The PRESS is portable, and can be taken down and removed at pleasure.

The subscriber will sell State or County rights for this PRESS, which affords a rare chance to secure a handsome business either in building or selling rights to others to build. All PRESSES supplied by the subscriber are guaranteed to perform according to the above statement, and to be made of good material, and in a workmanlike manner.

Persons wishing PRESSES at any future day will please make their orders early, so that the work may be executed in good season.

M'COMB'S NON-ELASTIC TIE.—The use of this PRESS, and M'COMB'S NON-ELASTIC TIE, (the wooden hoop secured by an iron link,) enables the planter to save from 75 cents to one dollar per bale, as he can put and keep his bales in shipping size. The subscriber will furnish links, with right to use, at 12½ cents per bale, (seven links to each bale,) and links and hoops ready to put on at thirty cents per bale.

In cases where it is inconvenient to make payment on the completion of a Press, an accepted draft payable out of the next Crop will be taken; consequently planters may have their work done early in the season.

AGENTS FOR THE SALE OF IRONS, RIGHTS, &c.

J. D. SPEAR & Co., Founders, Mobile, Ala.

GINDRAT & Co., Montgomery, Ala.

ZIESER & LANIER, Merchants, Vicksburg, Miss.

S. ZIMMERMAN & Co., Founders, Vicksburg, Miss.

SUETZ & HEWITT, Founders, Louisville, Ky.

GEO. W. SIZER, Agricultural Warehouse, N. Orleans, La.

S. P. BERNARD, Druggist, Providence, La.

In all cases, the receipt for the right to use is a lithographed engraving, signed by the patentee. These are furnished to all authorized to sell, and the public are hereby notified that no others claiming the right to build, or sell irons, are authorized.

MISSISSIPPI SPRINGS, May 3, 1850.

D. M'COMB, PATENTEE.

This is to certify that I am now using one of "M'Comb's Labor-Saving Cotton-Presses," on the third crop, and take pleasure in saying that it is truly a labor-saving machine, and surpasses any thing of the press-kind of which I have any knowledge for ease, speed, and convenience. Three bales to the hour is easy work for five hands, and LESS THAN HALF A HORSE-POWER is necessary to make a FIVE HUNDRED POUND BALE, and only ONE MINUTE USE OF THAT POWER. From my experience with my Press, I conclude that this Press will last ten times as long as any other Press in use. It is much less oppressive to hands than any Press I have seen, it being so constructed as to enable the operators to fill the box without having their heads within it. Upon the whole, I think it the most important improvement in machinery offered to the Cotton grower since the introduction of the Cotton-Gin.

JAMES M. GIBSON.

Warrenton P. O., Warren co., Miss.

The undersigned having witnessed the operation of "M'Comb's Labor-Saving Cotton-Press," take pleasure in saying that it is admirably calculated to remove all the difficulties heretofore contended with in making cotton-bales, as it combines all the advantages of ease, speed, convenience, and probable durability, more entirely than any press we have seen. The bale is made with from six to eight revolutions, which one horse can make with ease. Its peculiar construction makes the labor to hands less oppressive than usual, and its location under the roof of the gin-house, enables the planter to have pressing done in all kinds of weather, without exposure of hands. Upon the whole, it is our opinion that it is the most important improvement in machinery offered to the cotton growers since the introduction of the cotton-gin, as it reduces the (ordinarily) severe labor of baling cotton, to a comparatively easy operation,

E. J. TULLIS, HINDS COUNTY, Miss.

J. LIPSCOMB, MADISON Co., do.

DAVID E. MARTIN, WARREN Co., do.

A. K. MONTGOMERY, HINDS Co., do.

H. N. SPENCER, FORT GIBSON, CLAIBORNE Co., Miss.

E. T. MONTGOMERY, MADISON Co., Miss.

SAMUEL M'COMB, CLAIBORNE Co., do.

WM. MONTGOMERY, HINDS Co., do.

C. W. MONTGOMERY, do. do.

May 8, 1850.

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